

**C N CALLING**

God wants the happy-hearted girls,  
 God wants to make the girls His pearls,  
 And so reflect His holy face,  
 And bring to mind His wondrous grace;  
 That beautiful the world may be,  
 And filled with love and purity,  
 God wants the girls.

Number 1017 SEPTEMBER 17, 1938

# CHILDREN'S NEWSPAPER

EDITED BY ARTHUR MEE

**BRITAIN'S  
 PATCHWORK  
 MAP**

See middle pages

Thursday, 2d Postage Anywhere  
One Halfpenny

## THE WORLDWIDE NEWSPAPER

See  
Page  
Twelve

### THE LONG WALK OF OLD WILLIAM PAINE And the Little Walk at the End of It

THE staff of the King's England Books (the new Domesday Book of 10,000 towns, cities, and villages now being prepared in the C N office) have had a surprising experience in a village of Huntingdonshire.

Here they found still living the two daughters of old William Paine, whose grave is in the churchyard. He was a fine old man born in the first half of the 19th century, more than 100 years ago. He lived through every year of the Victorian Era and through all the Great War, and he lies in a grave under a stately avenue of limes which his own hand planted in the old churchyard of Waresley near Sandy, which is just over the Bedfordshire border.

#### The Great Exhibition

Waresley is a small village on a little hill among the trees, and some of its cottages have thatched roofs, some tall chimney stacks, and some charming Dutch gables. With them stands the inn and the little church, which was not so old as William Paine; he would watch the builders at work on it when he was a boy.

But what interests us about William Paine is the little tale of himself that he would tell a hundred times to the village folk as he sat in his old arm-chair talking of the past. He had a great longing to see the Great Exhibition of 1851 which was to usher in the peace of the world, and one morning he got up early and set out to walk to Hyde Park. He left Oliver Cromwell's county, passed through John Bunyan's county, walked through the lanes of Charles Lamb's

county, and at last reached the great city and the gate of the Crystal Palace, fifty miles or more from his home. He arrived without a shilling in his pocket, and, not able to pay his way in, he walked round the Great Exhibition and set off home again.

He had had his long walk to London, and at the end of it the little walk round the Crystal Palace.

#### Dreaming John

It was Dreaming John of Grafton who walked for seven days to London to see the crowning of the king, and though he had a shilling, a shining silver shilling, found himself at Westminster where they wouldn't let him in, and so walked home again and (as John Drinkwater tells us) held a court of his own in Shakespeare's countryside:

*So back along the long roads,  
 The leafy roads of England,  
 Dreaming John went carolling,  
 Travelling alone,  
 And in a summer evening,  
 Among the scented clover,  
 He held before a shouting throng  
 A crowning of his own.*

Dreaming John of Grafton walked home again with his shilling. William Paine of Waresley walked home again without his shilling. It is pathetic to remember these old men who loved our countryside in the long ago and loved pageantry too. William Paine lived to see the dream of the Great Exhibition broken by the Great War 60 years after; we hope his two daughters will live to see a peace made safe for all the children yet to come.

### WHAT DID AMERICA SAY IN 1910?

WHAT did the American Congress say in 1910? It is an important matter for us all. It may be said that Congress has rarely spoken more profoundly, yet it is the opinion of Dr Nicholas Murray Butler that not one American in a million knows of the declaration of both Houses of the American Parliament in that year. This is it:

Resolved—that a Commission of five members be appointed by the President of the United States to consider the expediency of utilising existing international agencies for the purpose of limiting the armaments of the nations of the world by international agreement, and of constituting the combined navies of the world an international force for the preservation of universal peace, and to consider and report upon any other means to diminish the expenditures of government for military purposes and to lessen the probabilities of war.

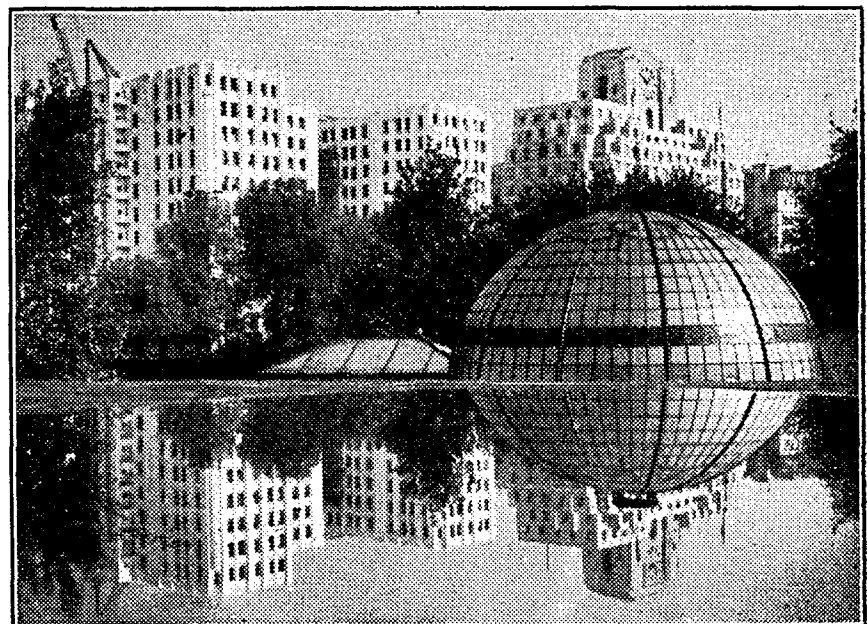
This remarkable resolution was passed unanimously by the House of Representatives on June 4, 1910, and by the Senate on June 20, and the names of those supporting it included those of Senator Beveridge, Senator Elihu Root, Senator Cabot Lodge, Senator Borah, and the present Vice-President of the United States, Mr J. N. Garner.

Lord Davies has long been a pioneer in this country of the idea of an International Police Force under the control of the League of Nations, and the New Commonwealth Movement exists to support it; but nothing so remarkable has ever been achieved on this side of the Atlantic so weighty as this resolution passed unanimously by the representatives of the whole American people a generation ago.

### Cottage and Skyscraper



Thatchers have been busy on the roof of the Hermitage at Hanwell, one of the few thatched cottages remaining in London. It is the headquarters of the Selborne Society



The new buildings rising on the site of the old Adelphi and Shell-Mex House, on the right, reflected in rainwater on a roof nearby



## VITAL HOURS FOR EUROPE

### The Future of Czecho-Slovakia

On another page we read an American Ambassador's plea for the wisdom of putting oneself in the other man's shoes when trying to solve critical problems.

Great American statesmen like President Wilson in his Fourteen Points, and Mr Hull in his proposals for solving the economic problems, which are the real cause of the troubled state of Europe, have certainly followed this sensible course.

The object of Lord Runciman's mission to Prague was to place at the disposal of the parties to the Czecho-Slovakian dispute a disinterested mediator, whose chief task would be to put the other fellow's point of view to his opponent.

#### Points of Agreement

The plan worked so well that leaders of the Czechs and the Sudeten Germans met in conferences round a table, and the Czech ministers worked out a scheme that met most of the demands which Herr Henlein had made for the Sudetens at Carlsbad last month.

The first of these demands was for full equality of status between Czechs and Germans; and the others asked for the determination and legal recognition of the German regions within the State, with full self-government and German officials for those regions, and full liberty to profess German nationality and German political philosophy.

The Czech Government has shown itself willing to place its German citizens on exactly the same footing as the Czechs and others, not only in according self-government in the areas in which they form the majority, but in giving them special recognition as Germans wherever they may live in Czecho-Slovakia, and in recognising the German language as equal to the Czech in the courts and elsewhere.

#### Impossible Concessions

What the Czech could not concede, and the moderate members of the Sudeten Party have not apparently demanded, is the expulsion of the Czechs from the self-governing German regions, or the setting up of a State within a State, with an army and power to make treaties with other States independently.

This would, of course, mean disruption of Czecho-Slovakia and the end of all the aspirations of a country which has been the most democratic of the countries of Central Europe since the war.

The future of Czecho-Slovakia is of grave concern to the world, which has been watching in the hope that a peaceful solution may be found. The great democracies of France, Great Britain, and America have worked for appeasement, and have done their utmost to show that they have no desire to use Czecho-Slovakia for the purpose of encircling and putting pressure on Germany. These great democracies desire peace and solutions of the world's problems round the conference table; and not the least of the contributions toward this end in these recent days has been that of America.

### A Great Idealist

Mrs Watts, who was known to thousands of men and women of all lands as the guardian of the Watts Memorial Gallery at Compton, has passed on. Her husband was the famous painter, George Frederick Watts, who died in 1904.

Like him, Mrs Watts was a great idealist and she was a strong supporter of the Home Arts and Industries Guild, which trains our countryfolk in handicrafts. She founded the Potters Art Guild, designing for it many of its best models.

## LITTLE CHAO

### A Tale of Gallantry in the China War

Gallant China is being defended not only by her men and women but by her boys and girls. The CN has already told the story of a gallant band of 16 Chinese Scouts and Guides from Singapore.

Though they are not fighting, the Boy Scouts and Girl Guides are doing heroic work with their First Aid Squads during air raids. This little tale has come to us of a 12-year-old Scout named Chao Chia-ting.

Chao was on board a train about to arrive at the city of Sunkiang with refugees from Shanghai when it was forced to stop, as it was being so badly bombed and machine-gunned, the passengers rushing for any kind of shelter they could find from the raining death. The crying of an abandoned baby attracted the Scout's attention, and he strapped the child to his back and ran helter-skelter to look for a doctor. After searching a long time in the stricken city he found a hospital run by American missionaries and left the child with them.

Then back he went to see what he could do for the other wounded refugees, and it was while he was easing their sufferings that other messengers of death came roaring overhead, dropping their deadly cargo, this time with Chao among the 300 victims. He was seriously wounded, but even then the brave boy thought of others rather than himself, telling the rescuers where help could be found.

Though the doctors at the hospital managed to save most of the 300 it is sad to know that Chao was not among them. He had given his life for China.

### How They Do It in Glamorgan

In February 1936 the Commissioner for Special Areas assisted in settling over 60 unemployed men and their families as a farming community on Boverton Place Farm, near Llantwit Major, Glamorganshire.

This began as an experiment but has justified itself. They call themselves the Boverton Castle Cooperators, and run the place mostly as a market garden, the produce being readily sold in all the neighbouring towns.

A rent is paid as against the cost of purchasing the property and working capital, but this is only charged to the men at three per cent.

They live in a garden village of 60 cottages, which they have called Berferad, the Welsh form of Boverton.

Each settler draws wages at 36s a week, and extras have brought the average weekly amount to £2 9s 6d. As they only pay 4s a week for cottage and garden this leaves a comfortable margin for other expenses.

In the ten months April to January 1938 they sold nearly £20,000 of produce, of which well over £9000 was paid in wages.

The real gain, however, is in the mental health and self-respect of the men.

### A New Traffic Signal

America is studying the problem of traffic light jumpers, motorists and pedestrians who get caught by the changing lights.

At the State Registry of Motor Vehicles at Quincy in Massachusetts experiments are being made with a new road traffic signal. It is a circle with 15 white bulbs and one red, the white ones showing how many seconds there are before the light is due to change, and then the red bulb, giving the final warning, thus making it impossible for a motorist to have any doubt in his mind about when to cross.

## MAN'S WAY WITH A LAKE

### But Nature Wins

If lakes could speak Waterhen Lake in northern Saskatchewan, Canada, would surely have a lot to say about the way Man has played about with it.

Ten years ago the lake with its surrounding marshland was a paradise for waterfowl. Then along came Man, thinking it would be a splendid thing to drain the lake and grow wheat. This was done and a dam costing £60,000 was built. But then it was found that the soil was not up to expectations, and that it was no good for growing wheat, and big thistles gradually took possession of the lake bed.

Now comes news that the dam is to be pulled down and that Waterhen Lake is to become a lake again. It is hoped that the waterfowl will be forgiving enough to return to it.

### Tom Thumb Dolls

In a little town in Mexico a clever Indian woman is busy making what must surely be the most unusual dolls in the world, for they are only three-quarters of an inch long.

Many are the visitors from far corners of the world who have watched her nimble fingers fashioning these fascinating little people. Each doll takes about two hours to make. She first winds silk round a piece of wire to get the correct shape, and then she begins the more intricate part of making the clothes, which are all exquisitely embroidered.

After that comes the most difficult task of all, the hair and face, each face being a work of art, for each doll has a character of its own. Sombreros are placed jauntily on their tiny heads and a native serape is thrown over the shoulder.

When finished these dolls are a joy to behold, and old and young delight in buying them from their maker, Isabel Beaunsaren of Cuernavaca.

### The Prisoner's Pet

We told the other day of the dog who was allowed to keep his master company in a prison in Melbourne, Australia.

It appears that pets are often allowed in Victoria gaols. Sometimes a tame magpie may be a man's inseparable companion, or little mice; or the grey walls may ring with the jolly laugh of a kookaburra.

Often it has been found that when a man gives himself the trouble of taming a bird or an animal he also tames himself unknowingly, so making the warder's task easier and life much happier for everyone.

### A Much-Travelled Cake

The man who won the wedding cake competition at the International Bakers and Confectioners Exhibition certainly deserved to win, for he had baked his cake in Rhodesia, flown 1000 miles to Capetown, then travelled 6000 miles by sea, arriving in this country just in time to enter for the competition.

He was Mr D. McIntyre, and when he goes home to Bulawayo he will no doubt be given a great reception in his cake shop.

### The Spiral Stairway

All those who have been to Ceylon and seen the famous frescoes and paintings on the top of the Sigiriya Rock fortress will not easily forget the thrill of climbing up a perpendicular ladder to get to them.

Now no more will travellers have to face this perilous climb, for a spiral stairway has been built to reach up to these 2000-year-old frescoes, and more people than ever will be able to see them.

## LITTLE NEWS REEL

New Zealand is to spend over £20,000,000 next year on State forests, coalmines, and land settlement.

Since 1922, 390,000 farthings have been collected at Holy Trinity Church, South Wimbledon, for the upkeep of the church hall.

A pigeon lost at Nantes in 1934 has returned home to its loft.

Italy has set up in Rome a monument in memory of the part she has played in General Franco's war on the Spanish Government.

Famous lawyers of five nations unveiled last week a memorial tablet to Hugo Grotius in the Castle of Louvestein in Holland. Grotius, author of an immortal work on international law, made a remarkable escape from this castle hidden in a box supposed to contain books.

Toy soldiers, toy revolvers, guns, and tanks are now banned in South Africa.

A card posted in Fulham in 1904 has just reached its destination at Wood Green.

A maid who served Dickens 80 years ago has just celebrated her 95th birthday.

An old fire bell, formerly used to call the Maidstone firemen together, is to be engraved and hung on the fire-engine.

By winning three out of five matches, U S A has retained the Davis Cup for another year.

As a protest against Signor Mussolini's ban on the Jews Mr Henry Bernstein, the French playwright, has returned all his Italian decorations.

Dick Whittington, the Lord Mayor's missing cat, has returned to the Mansion House.

The last house of Nash's Regent Street, with its little iron balcony, is to be demolished.

## THINGS SEEN

A celluloid doll's head on a fancy matchbox sold at a Bedfordshire sale of work.

A white swallow near Mill House, Witham, Essex.

A duckling climbing into a model yacht on the lake in Victoria Park, London.

A crowd of people in Edinburgh's main street watching swallows setting out on their flight south.

## THINGS SAID

Beautiful is my vocation and beautiful my task. Queen Wilhelmina on her accession

The return of better times depends greatly on your character, your thoroughness, enterprise, and adaptive power.

Queen Wilhelmina to Youth

Dogs are being trained to find Belisha beacons. R S P C A inspector

If we go on making our cricket pitches like billiard-tables the time will come when the boys will refuse to bowl.

Dr Lyttelton

There can be no compromise or conciliation between totalitarianism and true Christianity, for they are at bottom opposed. Sir Cyril Norwood

I should like to see a Minister of Leisure appointed, who would have under his control all problems of leisure time, recreational, educational, and cultural. Mr H. Elvin, T U C President

## THE BROADCASTER

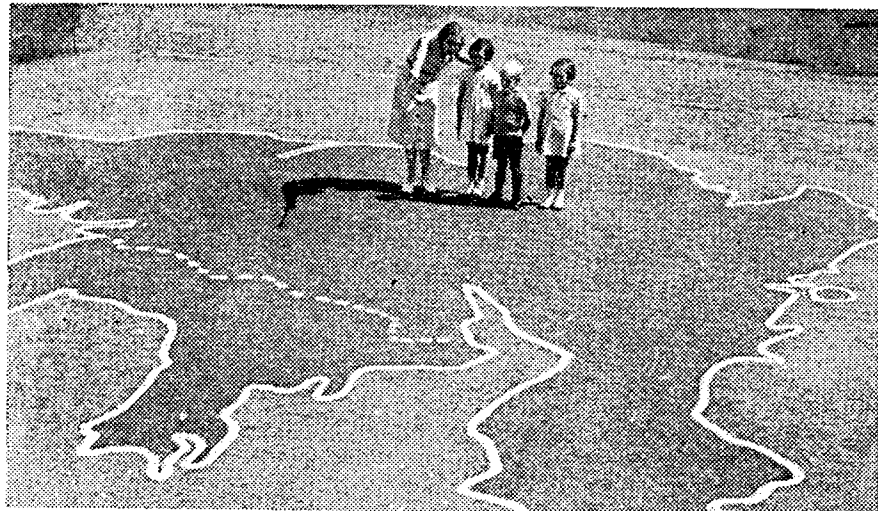
OFFICIAL estimates suggest that the world production of wheat this year will create a record.

LAST year's Poppy Day appeal produced £553,084, the largest amount yet collected.

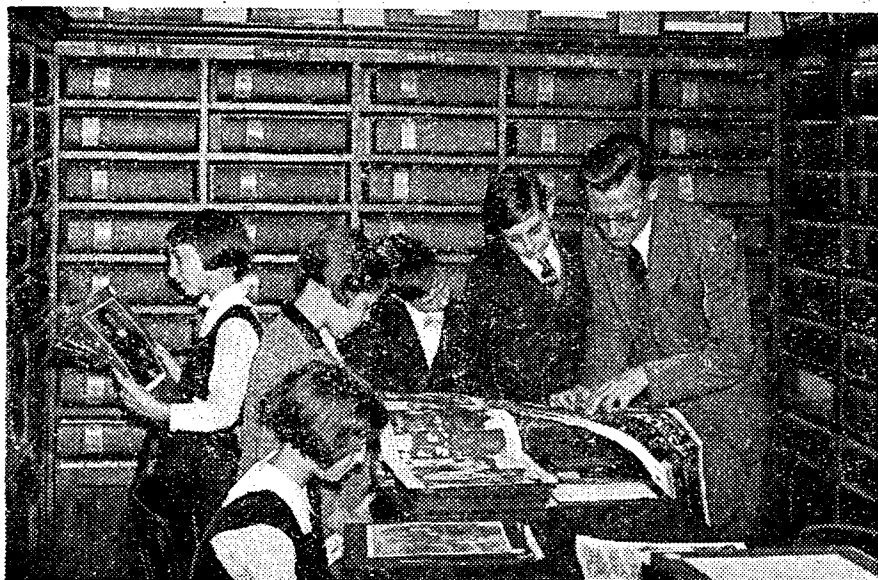
THE first King George the Fifth Playing Field in Northern Ireland has been opened at Ballymoney.



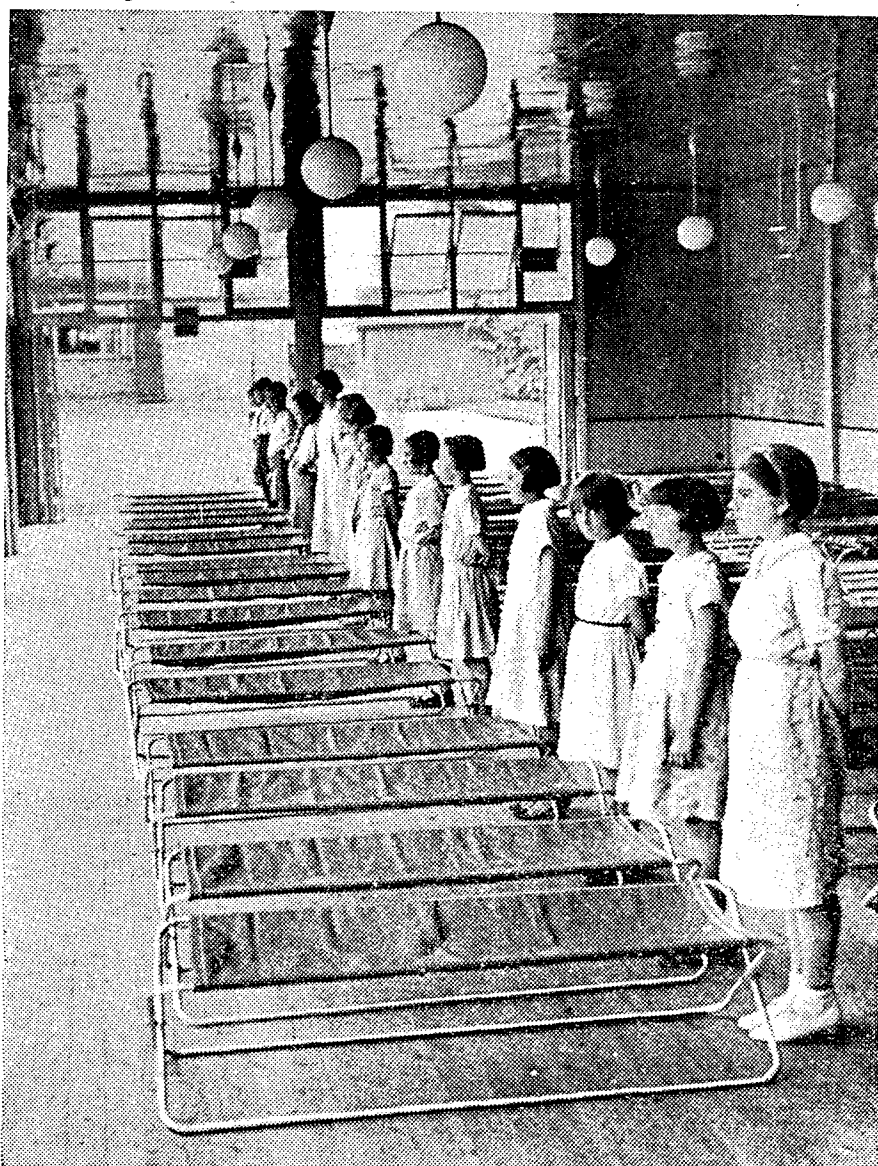
# Map in a Playground · Picture Library · Time For Rest at School



**Playground Map**—A master has drawn this outline of the British Isles in the playground of a Clapham Common school, and the pupils are to fill in the rivers, railways, towns, and so on



**Picture Library**—Bermondsey has a special picture section in its Central Library where boys and girls may consult pictures of educational value on a wide variety of subjects



**Parade for Rest**—A splendid new open-air school has been opened at Isleworth. Pupils have their midday meal at school and after lunch enjoy a rest on the cots seen in the picture

## DEER KILLED WITH KINDNESS

### And a Warning About Bears

It is tempting to feed the deer in Richmond Park or at Hampton Court, but it must not be done.

The deer do not mind, and, being inquisitive as well as condescending, will eat anything offered to them, from sandwiches to bananas. They may even do more than sniff at orange peel, which thoughtless people will offer to them under the impression that it is good for them.

It is not, and as for the sandwiches, it may be said of them what is one man's meat is a deer's poison. The Commissioners of Works, in announcing a new regulation that no unauthorised person shall feed the deer in any of the royal parks, say that such food is harmful to the deer, and some of them have died from indigestion after eating sandwiches.

The deer are well provided for in season and out; and, moreover, it is often very dangerous to approach them in the month of October, and is not without peril at other times.

The warning against feeding tame deer has a counterpart in another regulation across the Atlantic, where the public who visit the Great Smoky Mountains National Park are told they must not offer food to the tame bears.

It is not that the food gives the bears indigestion, but it ruins their moral character. They are always hungry, and, having once been given food by tourists, become most sturdy beggars. After a time they may take no refusal, and become a grave menace.

## The Ovens on a Volcano NEWS OF THE STONE AGE MEN

**T**o find two ancient Maori ovens that had not been used for centuries was the experience of a workman who was preparing land for a tennis court at Dawson Falls mountain house, high up on the slopes of Mount Egmont, one of New Zealand's extinct volcanoes.

In the days before the white men came the brown-skinned Maoris used to cook their food in ovens made by lighting a fire over a pit filled with stones. When the stones were red-hot, the food was placed on the stones and covered over with greenery and earth. In this way the Maoris steamed their food in their underground ovens.

These ovens discovered on the slopes of Mount Egmont (which has often been

called The Fujiyama of New Zealand) are especially interesting because they supply proof that the mountain had a Maori population before its eruption several centuries ago.

Among the buried stones of the oven were found portions of charcoal which had the appearance of being new, but there is no doubt the land had not been disturbed since the eruption.

Steps have been taken to preserve these old stone ovens of the ancient Maoris who lived on the mountain. The locality has been fenced off, and a road-way has been diverted.

What happened to the men who made the ovens centuries ago? Did they perish in the eruption?

## PURE CARBON FROM POOR COAL

### Necessity the Mother of Invention

Because the demand for pure carbon to be used in industry is going up by leaps and bounds necessity has proved the mother of invention.

The Government, through its departments of industrial and chemical research, has found ways of manufacturing the kind of carbon required from our native supplies of coal, and is doing it quite cheaply.

Active carbon such as this is has usually been imported. It is a great absorbent. It will absorb gases and many evil-smelling substances from liquids. Sir James Dewar employed it in liquid gas experiments at low temperatures. It is used in filters and in sugar refineries as well as in many chemical processes.

It now appears that it can be prepared from a number of kinds of coal that is easily found, and can be made more simply than has hitherto been done by the one English firm which has supplied it. This firm selects a particular kind of graded lump coal, grinds it very finely, and makes it first by high pressure into cakes before baking and steaming it.

The new process dispenses with the grinding and caking, and is able to do so by selecting the right kind of coals. These are found, not in the hard, bright coal the householder buys for his sitting-room fires, but in dull, hard coals. These occur in bands of sufficient thickness to be separated by hand from the bright coal in the Nottingham, Derbyshire, and South Yorkshire mines.

## When the Chest was Opened?

**A**t the sale of antiques from Gordon Castle, the home of the Gordons in Morayshire, the most exciting lot was a huge iron Dutch chest.

It had been at Fochabers for 200 years, and was a strange relic of the march of the Duke of Cumberland to Culloden, where he crushed in one battle the hopes of Charles Edward, the Young Pretender, in the '45 Rebellion.

The battle took place on April 16, 1646, and on his way to it the Duke crossed the River Spey at Cumberland's ford. From there the old iron chest, so big and heavy that four men were needed to hoist it on to the auctioneer's table, was recovered years afterwards. It has painted panels, green with age,

and their subjects hardly distinguishable from its long immersion in the river; and, though it had been so long at Gordon Castle, it is said that nobody had ever opened it to see what treasure it might contain.

This is all the stranger because when the chest was moved something rolled about inside it. An antique dealer bought it after keen bidding, but if he expected to find in it the contents of a war chest we think he would be disappointed. We shall be glad to hear what was found.

Treasure trove which only calls for a key (or the nearest blacksmith) would not remain unsought among canny Scots for two centuries.



## ITALY TURNS OUT THE JEWS

### All Settlers Since the War to Go

Italy, where from the days of the Caesars the Jews have always been treated fairly, has decreed the banishment of thousands of their race.

All who have settled in Italy during the past 20 years and are the children of Jewish parents must leave Italy and all its colonies, except Italian East Africa (as Abyssinia, Eritrea, and Somaliland are now called) within six months.

No Jewish children are to be allowed to enter the State schools, but whether special educational facilities are to be granted to them has not yet been stated. All Jewish professors and teachers have been deprived of their posts.

This much-to-be-regretted decree is said to be aimed chiefly at the recent Jewish immigrants from Germany and Austria, but it will affect equally all those who found sanctuary in Italy after the war. It is true that only those having two Jewish parents are concerned; but it is one more step back into the Dark Ages, and revokes that fine action of the founders of Modern Italy in emancipating the Jews when their country won its freedom.

The chief secretary of Count Cavour was a Jew; and Daniel Manin, the patriot who inspired the Venetians to hold out for four months against the Austrian besiegers, was the son of a Jew.

The decision imposes an additional burden on the Permanent Refugee Commission, representing 30 nations, now established in London.

## CHEAPER POTATOES

### Low Price Obtained By Grower

In the C N of August 13 we gave the official change in the cost of living from the Labour Gazette. It was much affected by dearer milk and potatoes. In the early part of July potatoes were abnormally high in price. Since then the price has fallen substantially, and this with other charges has reduced the cost of living by about 3 per cent.

A grower writes us that potatoes have become so cheap as to be hardly worth the expense of lifting, but it cannot be said that they are dirt-cheap at the shops. This grower says he is getting only 50s a ton, which is about four pounds for 1d.

## The Flame of Faith

By the American Ambassador

Aberdeen Cathedral is being enlarged as a thankoffering by Americans to Samuel Seabury, who was consecrated in this city in 1784 as their first Anglican Bishop. We take these passages from the fine speech of Mr Kennedy, the American Ambassador, when he laid the foundation-stone the other day.

We must reawaken the flame of faith and spiritual courage which has always enheartened the men of right vision in the world's history.

We must give our young men and women who are just coming of age something else to hope for than a short life carrying a gun. I well understand the discouragement which I occasionally hear young people express, and I feel it is the fault of us, their elders, that we have let things come to such a pass for them.

We owe it to the great mass of the people of our countries and of other countries, to our children and to theirs, to leave no avenue unexplored in our efforts to prevent war. It ought not to be beyond the reach of human intelligence to prevent the disaster everyone seems to fear.

I believe it can be done by the application of the principles we have been discussing—by faith, by spiritual courage, by loyalty to right dealing, and by the exercise of common sense.

## THE SIMPLE ANNALS OF THE POOR

### Fourth Centenary of the Parish Registers

FOUR hundred years ago this month the Parish Registers were ordered to be placed in our churches, and records of every Englishman set down for posterity.

It comes somewhat as a shock to discover that this innovation was the act of a man who is probably the most execrated minister who ever served a king of England, yet with that other injunction of 1538, the placing of an English Bible in every parish church, it has survived all opposition and proved of undoubted benefit to the nation.

Thomas Cromwell was the originator of the scheme, and it is interesting to note that the only change in the rules concerning the entries occurred in the days of his great-great-grand-nephew, Oliver Cromwell, when the word *born* was substituted for *baptised*. Oliver was a godly man, but this can hardly be said of Thomas, who was the most ruthless agent of a cruel and heartless sovereign recorded in our annals.

The year 1538 was the year in which Cromwell was planning the destruction of the Pole family, sending assassins to Europe to try to murder Reginald Pole. It was the year before the dissolution of the larger monasteries, through which he had promised to make Henry the richest prince in Christendom. The country swarmed with Cromwell's spies and no man was safe.

By flattery and cold efficiency Thomas Cromwell had won his way to supreme power. He controlled secular matters as Lord High Treasurer and Lord Privy Seal, and spiritual matters as vicar-general and vice-regent of the king. Though in the hours immediately before his execution he declared himself a Roman Catholic, he found a place in

Foxe's Book of Martyrs, but the researches of Professor Pollard, a leading authority on this period, show that his aim was to establish the divine right of kings in place of the divine right of popes in spiritual matters as well as in secular. In Cromwell's view the word of the king was law and the royal whim was above justice.

So we find that it was an injunction and not an Act of Parliament which established our parish registers; and it is not surprising to find that a cowed and submissive clergy regarded the idea with fear, while those of the laity who had any knowledge of affairs believed that in the register was a scheme to subject everyone to the rigid control of the State, mainly for purposes of taxation.

There was no great haste in providing the registers, only about 800 having been begun in 1538. During the next 20 years 1822 registers were started, and about 2450 during the reign of Queen Elizabeth, who renewed the injunction soon after she came to the throne. Her successor James ordered the register to be copied into a parchment book, the records having previously been written on paper. Even this was not precaution enough for some of the books, though they were kept in those triple-locked chests still to be seen in many a village church.

The effects of war, plague, and famine, of migrations and other changes of fortune, are all to be found in these pages, written by so many hands. Indeed, the registers are the simple annals of the poor, and many a historian has pored over the pages seeking some hint of passing custom or the origin of some important change in our ways of life.

## The Electric Organ and the Telegraph

JUST 96 telegraph or telephone messages can now be sent over a single line by means of one of the most remarkable and romantic advances that has been made for years in the mysterious world of electricity.

The newest kind of organ makes its musical notes not by the vibration caused by air in bulky organ pipes, but by means of currents which are generated in tiny, compact electric apparatus which produce, for each separate note, alternating current of the correct frequency or pitch.

These organ "tone generators" have been found to generate alternating currents of ideal frequencies to act as carrier currents for both telephone and telegraph messages, and as many as 22 simultaneous carrier currents, spaced 300 cycles apart, can be generated and

passed over the same telephone line without any one interfering with another.

By the use of a simple arrangement of ghost circuits the 22 currents can be made to carry 96 messages simultaneously.

This very ingenious application of music organ mechanism to the work of the telephone engineer is not merely an idea. It has been actually applied to telephone circuits between New York and Chicago, Washington, Buffalo, and other big cities, and is likely to see widespread application in U.S.A. It involves only a simple adaption to existing telegraph and telephone services. The electric organ from which the tone generator idea has been evolved is the famous Hammond organ, which has no pipes or reeds and is being used in many of the new cinemas and concert halls up and down the country.

## Taking It Sitting Down

THE parents of the present generation are all familiar with the stories of the absent-mindedness of Lord Salisbury, who used to exchange office as Prime Minister with Gladstone, but never could remember such trifles as the details of his costume in private life, and would go to State functions with his uniform wildly wrong.

Sir George Arthur, who is now publishing his autobiography, tells how the great man once started out to go rabbit-shooting on his Hatfield estate wearing a frock-coat!

Until a few years ago the Marquis had a rival of the sort in that grand old man of the Law Sir Henry Poland, who, with an immense practice at the Bar,

was so careless about his dress that a despairing relative at last dragged him off to the tailors who dressed half the kings of Europe, and left him there to be fitted.

The new clothes proved excellent in quality but deplorable in cut. "Well, how could we fit a gentleman who insisted on being measured sitting down?" replied the aggrieved tailor to a kinsman's complaint. "Quite right," said Sir Henry; "I like to be comfortable, and as I spend three-parts of my life sitting down I prefer to be measured so."

Having his way certainly suited him, for he had a long life, and when he died he was within fifteen months of his century.

## SLOUGH NOW A TOWN

### Amazing Progress in a Century

#### HOME OF GREAT ASTRONOMER

A wayside hamlet of Buckinghamshire, where Queen Victoria, nearly a hundred years ago, began her first railway journey, is this week celebrating its incorporation as a town. Slough has closed many of its busy workshops for a day and for three days its children have been making holiday.

It is just 100 years since the G W R opened a station opposite the spot where a road comes from Windsor and Eton to join the Bath Road. Very few people then lived here and the old village of Upton a mile away was dwindling rapidly.

The railway enabled the brickfields and market-gardens of the district to supply London's needs, and the railway itself established engineering works which formed the beginning of an industrial population which now numbers 55,000.

#### Unwanted Stores

It was two national tragedies which led to the trebling of the population in the last 20 years, the War and the Depression.

During the war the Government used some hundreds of acres near here as a store for motor-vehicles, machinery, and other goods. With the Peace this vast area of unwanted stores became a byword, but a company was formed to take it all over and establish light industries on 600 acres of the site. Today there are 200 factories on the estate, and others have been established in the town.

The provision of houses, schools, and so on for the newcomers was a serious problem for the local authorities, but so well have they met their problems that when the Depression struck the big industrial areas of Wales and northern England thousands of their unemployed were able to find work and homes at Slough. Since 1931 Slough Urban Council has spent over £1,000,000 on its schemes, while, with the county authorities, it has had due regard to town and regional planning.

For Slough is in the beautiful Penn country, with Stoke Poges looking down on it; indeed, many people of Slough have claimed that Gray's *Elegy* refers to their Norman church at Upton and not to that beside which the poet lies.

#### Herschel's Giant Telescope

Slough, however, has an unchallengeable claim to fame, for in Upton Church lies Sir William Herschel, and it was in a house on the Eton Road here that this German-born astronomer made his invaluable discoveries. In his garden he set up his giant telescope, and gazing into it from a platform 50 feet above the ground he discovered double stars which revolve round each other, and many another secret of the Universe. Here with his sister Caroline he made his famous catalogues of stars and nebulae. The French astronomer Dominique Arago paid this tribute to the last home of the discoverer of Uranus: "Slough is the place in the world where most discoveries have been made; the name of this village will never perish."

We hope that as a town Slough will go on adding to its fame; it has at any rate one of the finest community centres in the country, and in its Charter Mayor a citizen who has been working for this new honour for a quarter of a century.

#### Pronunciations in This Paper

Apamea . . . . .	Ap-am-e-ah
Capricornus . . . . .	Cap-re-kor-nus
Eritrea . . . . .	Ay-re-tray-ah
Pleisse . . . . .	Plice
Reykjavik . . . . .	Ray-kyah-veek



## UNDER FALSE COLOURS

A BBC speaker has been giving a fresh lease of life to a baseless legend by describing the famous Chelsea Hospital for aged and disabled soldiers as Nell Gwynn's Hospital.

Nell Gwynn had absolutely nothing to do with that old foundation, which sprang from the suggestion to Charles the Second of Sir Stephen Fox, who, rewarded with richly paid offices for his fidelity to Charles during the exile, not only proposed the hospital but gave what would be about £75,000 in modern money towards bringing it into being.

## BRINGING THE BOOK TO THE FARMER

Eight years ago farmers in Canterbury, New Zealand, would look forward to the visits of Mr G. T. Alley, for he would lend them something they valued more than anything else, books.

Living a simple life in a motor-van, and sleeping on a stretcher, he would tour the countryside with his learned cargo.

From such small beginnings has grown the New Zealand Country Library Service, with Mr Alley as librarian, and now book vans carrying 1000 books tour both islands of the Dominion, visiting each library and exchanging books with them every four months.

## THE BOY IN THE MINE

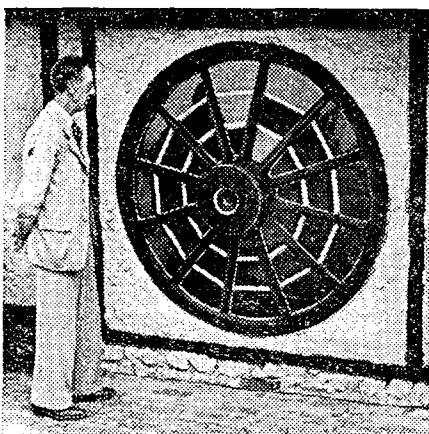
We are glad to learn that in some of the Lancashire mines boy miners are to continue their education. Pit boys between 14 and 16 years are to attend lessons on one day a week. The colliery companies employing them are to pay the boys for the days on which they are taught. This is a reform which has been long hoped for, and we trust the plan will be widely extended.

## HOW NOT TO ADVERTISE

We are frequently told that it pays to advertise; and so it does if the advertisement is not nonsense.

"Try our butter," a local grocer announced not long ago; "nobody else can touch it." This, we suppose, was meant to induce the public to make a purchase, but we are afraid it would not succeed in doing so, any more than the announcement in the window of a cheap eating-house: "Dine here once; you will never dine anywhere else."

Perhaps the most unfortunate example was the newspaper advertisement issued by a firm of outfitters, so confident of their goods that they declared: "We are running a sale of men's shirts, which will last only one week."



An old wagon wheel built into a house as a window at Chestfield in Kent

## ENGLISH CHILDREN IN INDIA

It is said that if private persons in Great Britain do not subscribe for the purpose the education of children of British parentage in India, and of Englishmen there who married Indian wives, will either suffer gravely or even come to an end unless the little ones are sent to native schools.

The position results, Lord Goschen tells us, from world wide economic depression compelling the Government to cut down expenditure to the uttermost penny.

# The Windmills Carry On

It is interesting to remember that there are still about 200 windmills at work in England.

Once upon a time England was second only to Holland in the number of her windmills, but they are gradually vanishing, thousands all over the country having been turned into homes and farms.

There are many fine ones in Norfolk and Lincolnshire, the flattest of the English counties. Some drain the Norfolk Broads, others grind whole-meal flour, for the stones of the windmill are specially suitable for grinding rough meal. The oldest windmill still carrying on its work is at Outwood in Surrey. It was built in 1665 and from it peasants watched the Great Fire of London. An ancient mill at Brill in Buckinghamshire, built three years later, is of special interest because it is an older kind

known as a post mill, moving round with the wind. Not far from Brixton Prison in London, standing back in Cornwall Road, is a great surprise, the last windmill in Lambeth and the last workable one in London. It was built in the year after Waterloo, and for 60 years ground corn before its sails were removed; but it is still sound and in working order. Many of its timbers are from old ships.

At St Margaret's Bay in Kent a windmill for generating electricity has been built, but as the wind is unreliable the scheme has not been found practicable.

The Society for the Preservation of Ancient Buildings has during the past eight years saved 26 windmills, and the latest to be preserved is the smock mill near Upminster in Essex, built at the beginning of last century.

## PAINTINGS ON STAMPS

The Rumanian Government is issuing a set of five postage stamps in honour of a famous native artist.

They celebrate the centenary of the birth of the painter Nicolae Grigorescu, who lived to the great age of 99, and died only last year. The four lower values reproduce some of his best pictures, and the highest, the ten lei stamp, has a picture of Grigorescu himself. Landscapes with horses and figures predominate in the pictures.

## MACHINERY IN MINIATURE

Ships, trains, aeroplanes, and numerous types of engines, all in miniature, are to be seen at the Royal Horticultural Hall, Westminster.

This year's Model Engineer Exhibition (September 15 to 24) is the twentieth of its kind, and it is thrilling to see the many ingenious models of intricate machinery and electrical and scientific equipment, many of them made by boys. There is a large-scale model railway engine carrying passengers in the hall, and there are several model electric railways shown at work.

We can well imagine boys of all ages (and this includes fathers and grandfathers), and girls too, being fascinated by this most interesting exhibition.

## STAGE LIKE A STREET

We are fond in these days of claiming for things that they are the biggest in the world.

An American cinema seating 7000 has now been stated to be the biggest theatre, but the ruins of a theatre seating 12,000 have been discovered in Apamea (Syria) with a stage 400 feet long, about as long as a street.

## INDIA'S POPULATION

The India Public Health Commissioner forecasts that the next Indian Census, to be taken in 1941, will reveal a population of 400 millions, or nearly nine times as many people as live in Great Britain.

It has been estimated that if famine and great epidemics could be avoided India would grow beyond her power of supporting new lives. Better hygiene seems to be greatly increasing the rate of growth, and the Indian population problem is likely to become acute.

Far more than half the Indian population is Hindu and over a fifth Mohammedan. The remainder belong to many religions, the untouchables (Hindus possessing no "caste") numbering some 65 millions.

## SOME FELL BY THE WAYSIDE

The sparrows in the neighbourhood of South Shields had a jolly teatime a few days ago when a car and a baker's van collided. No one was hurt, but the van overturned, scones and buns and cakes being scattered on the road. Within a few minutes hordes of sparrows flocked to the unexpected banquet.

## TYPHOON IN JAPAN

Japan has suffered severely from the elements in this year of her war.

The Yellow River has overflowed her battlegrounds in China; but the unkindest cuts have come in her own land, where earthquakes and fires have followed one another, and the worst typhoons for more than 30 years struck Yokohama, Tokyo, and other places.

Yokohama, one of the chief of her ports, with half a million inhabitants, was nearly wrecked, the town was plunged in darkness owing to the destruction of the electric supply, and over 100 lives were lost.

## ELECTRIC SAFETY LAMPS

The electric safety lamp is proving so satisfactory in practical use that it is ousting the old flame safety-lamp. In the Lancashire and Cheshire mines two-thirds of the lamps used are electric, and much the same proportions are recorded in Wales and North Staffordshire.

## THE ROAD PROBLEM THEN

The English road is almost perfect, but those who drive mile after mile along our smooth highways may well contrast the road today with the road as Arthur Young knew it when he made a six months' tour in the north.

That was about 1770, and how bad the roads were then we gather from what he wrote about the highway from Liverpool to Wigan:

I know not in the whole range of language terms sufficiently expressive to describe this road. Let me most seriously caution all travellers who may accidentally propose to travel this terrible country to avoid it, for a thousand to one but they break their necks or limbs. They will here meet with ruts four feet deep, floating with mud only from a wet summer. What must it be like in winter? The only mending it receives is the tumbling in of loose stones, which serve no other purpose but jolting a carriage in the most intolerable manner.

## BOY OF 15 SETS UP FOR HIMSELF

Ted Ryan, aged 15, of Pott's Point, Sydney, has set up on his own as an architect's modeller.

At nine years old Ryan began building model aeroplanes. He was rewarded with free air trips all over Australia. Then he took to modelling buildings, won eight first prizes, and was finally commissioned to build scale models of important new buildings both in Sydney and Brisbane. Now, at 15, Ted Ryan has bought the business interests of a professional modeller, and is starting on his own. His only tools are a cobbler's knife, a razor-blade, and a few pins.

## IN A WINK

If there is any delay over the telephone in Sweden the Swedish operator says, not "Just a minute," but "In the wink of an eye."

## A QUIET SPOT

Many of us are looking for a quiet spot. In these days, with the pace of life swifter than it has ever been, and crowds everywhere, he is fortunate who finds a corner where the peace is unbroken.

But we have heard of a man who found a spot so quiet that he asked the station-master what he could do to pass the time. After thinking a minute the station-master lowered his voice and said confidentially:

"Look here, sir, if you come round about half-past six you can watch the luggage train shunting."



This Way to Egypt (in Buckinghamshire). Removing a signpost during road alterations at Farnham Common

## HARNESSING ICELAND'S HOT SPRINGS

Iceland's hot springs may be harnessed and used to heat office buildings and houses in the towns.

Near Reykjavik, the capital, there is an abundance of hot springs. Some of this hot water is already used to heat a few buildings and greenhouses and to supply the laundry and public swimming baths. The city officials are now planning to pipe much larger quantities of the water into the city.

Although Iceland lies near the outer edge of the Arctic Circle the climate is warmer than that of many districts in the temperate zone. Fuel is scarce in Iceland, for there are no coal deposits. Imported coal is costly, and the few trees are usually small and stunted.

If the harnessing of hot springs is successful in Reykjavik the scheme will be used in other towns, for hot springs abound throughout the country.

## THEY THOUGHT IT WAS LITTER

Ten £5 notes were picked up at The Ridgeway, North Chingford, three days after their loss had been reported to the police. The notes had been trampled on by passers-by and soaked with rain.

If litter were not so appallingly voluminous we might have time to stop and examine it all, but only a few unthrifty folk throw away £50.

## THE NEW KIND OF FILM

A new feature picture is being made at Hollywood which will show pictures on the screen in full relief.

In spite of many ingenious inventions stereoscopic moving pictures have not yet been produced successfully. This method, the invention of Mr Joseph Valentine, called the Human Eye camera, uses a prism of glass as thin as paper and the size of a two-shilling piece behind the lens.

This simple invention has the effect of appearing to separate the background from near objects and to give a wonderful reality of space.

## ANOTHER OLD BUILDING SAVED

At the eleventh hour Wrexham's old town hall has been saved from being pulled down for road widening.

This interesting building, which dates from the reign of Henry the Eighth, was rebuilt in 1715.



## CHILDREN'S NEWSPAPER

SEPTEMBER 17 1938

As Others See Us  
(And We See Others)

AN American writer, Edwin Muller, gives a half humorous, half bitter, account of the many false ideas about the United States spread in foreign lands.

Having done so, he very truly surmises that it is much the same with all nations, that in each land there are formed false pictures of other lands; and he concludes:

We are all like men wandering round in a dense fog. As each of us looks about him he sees the others as menacing, beastlike figures. If the fog lifted perhaps we'd all look pretty much alike. The common people of the world aren't very different from each other. If they had all known that, would there have been a World War? They are dangerous things, these false pictures that we have, each of the other, and they are making history, making it wrong.

Mr Muller expresses a great truth. We are all, of whatever nation, alike at heart, capable of the very good, subject also to weaknesses that at times make it possible for us (alas!) to be very bad. On the whole, the philosophic verdict is that in the end, in every nation, the good prevails. Let us look for the good and we shall find it.

The worst of it is that in these modern days we have a new factor in hate-making, a printing press producing millions of copies of hate-stories, and too often forgetting to print with them a corresponding set of love-stories.

## Making Men

WHAT marvels we perform with plants and animals!

The horse, the dog, the ox, the canary, the budgerigar — man changes them out of all knowledge; while with rose and dahlia and peony we delight in producing miraculous changes.

No such miracles are needed if we aim at producing superior humans. All that is asked of us is to provide fresh air, sunshine, plentiful and pure food, appropriate clothing and shelter, training of body and brain. These things present no such difficulties as attend the changing of a green budgerigar into a blue one.

We might draw the same moral from physical science. We have discovered how, by analysing the light of a star, to tell what it is made of! Yet we hesitate to do the simple things needed to enable all children to grow up into healthy, right-minded people.

We may add that it is found that eight out of ten of the boys and girls in the German labour camps have increased their weight through simple physical training.



## THE EDITOR'S TABLE

John Carpenter House, London

above the hidden waters of the ancient River Fleet, the cradle of the journalism of the world



## The Ether and the Air

IT was remarkable the other day to hear a friend from Australia declare that he would not have a wireless set in his house.

In reply to an expression of surprise he declared that the advertisements made broadcasting detestable.

It cannot be too often repeated that the Government deserves the eternal thanks of all good people for keeping advertising out of the B B C, and it is worth while for all of us to do what we can to help the movement to keep advertisements out of the sky.

The time may come when we shall see something like taxis flying over our heads in great numbers, and it is not too soon to insist that an end should be put to the attempt to use the sky as an advertisement hoarding.

*Having freed the Ether from this vulgarity let us now set free the Air.*

## Kill and Run Away

NOT the least dreadful item in the record of road casualties is the frequent occurrence of cases in which a motorist knocks down and kills or injures a pedestrian and runs away, leaving his victim unattended.

Never a week passes without such a case being reported, but we rarely hear whether the coward who runs away is ever caught.

Kill and run is becoming far too common, and we may wonder if large rewards should not be offered for the discovery of people of this sort. They are surely the meanest and most heartless people on the roads.

## English as She is Wrote

A FRIEND has copied for us the notice to English visitors put up in an Alpine hotel. It is one of others printed in French, German, and Italian, and it reads:

*It is defended to circulate in the hotel in the boots of the ascension.*

Our young scholars may like to translate it: as a key we may say that "boots of the ascension" are climbing boots, which have studs.

## The Sandwichman

WE see that in one foreign land it has been forbidden for boys to work as shoeblacks in the streets.

The occupation is officially denounced as unworthy, and is therefore banned as a degradation. Such a ban must, of course, be accompanied by the provision of better work.

An even worse case from this point of view is that of the sandwichman (sandwiched between his boards), who is still a sorry object of our great thoroughfares. It is a truly terrible thing that some poor, unfortunate creature, broken in the struggle to live, should be hung about with advertisement boards and sent, foot-sore and weary, to perambulate the streets for a paltry wage. To hang advertisements on a man is worse than plastering them all over a house.

We have even seen a business firm send out dirty and bedraggled men bearing great structures built on irons fitted to their shoulders. Rarely was a slave set to a more degrading task. Such employments should be forbidden.

## Sunday

FROM not a few delightful places come complaints of the desecration of Sunday by holiday-makers.

To such complaints it is replied that the people need recreation on Sundays, and take it because it is the day on which they have the best opportunity to travel.

But surely there would be no complaints if pleasure-seekers would take their holidays with due regard to the comfort and rest of others. There seems to be a widespread impression that the possession of wheels on which to travel gives their owners licence to do as they please. It is necessary to understand that this belief is one which is quite unfounded.

## JUST AN IDEA

*Do you belong to the lower classes which live only to be waited on, or are you one of that glorious aristocracy which lives to serve?*

## Under the Editor's Table

ALWAYS give a straight answer, says a schoolmaster. But suppose you are asked to describe a circle.

A MARROW can be used in many ways, says a cook. We prefer to eat ours.

MONEY has been found in a pond. Some one trying to make a splash.

WILD West films are still popular. If they weren't producers would be wild.

AIR MAIL pillar boxes are going. To catch the post?



If a walker ever gets run down

A POLICEMAN who was snapped against his wish took the camera away. And took his own photograph.

SOME people are always up to their eyes in work. Especially overseers.

A GOOD critic keeps cool. Easy when so many books are frosts.

MANY cyclists cannot ride properly. But they will get on.

SWIMMING is boring, declares a writer. But certainly not dry.

## John Bunyan's Rhymes For Children

IN this John Bunyan year (250 years since he died) it is interesting to remember that he wrote nearly sixty books, all but three of which are dead.

The rest belong to other days than ours and have gone with the fashions of their day. They were fashions of thinking, and are worn away like the cloaks men wore. But Grace Abounding and The Holy War still live, and The Pilgrim's Progress stands next to the Bible as the monument of an imperishable man.

John Bunyan also wrote rhymes for children, some of which we give here.

## ON THE WAY TO PARADISE

Some boys have wit enough to sport and play  
Who at their books are blockheads day by day.  
Some men are arch enough at any vice  
But dunces in the way to Paradise.

## THE BEE

The bee goes out and honey home doth bring,  
And some who seek that honey find a sting.  
Now, would'st thou have the honey and be free  
From stinging, in the first place kill the bee.

## THE WEATHERCOCK

Brave weathercock, I see thou set'st thy nose  
Against the wind which way soe'er it blows.

## THE PENNY LOAF

Thy price one penny is in time of plenty;  
In famine doubled 'tis, from one to twenty.  
Yea, no man knows what price on thee to set  
When there is but one penny loaf to get.

## THE HOBBY-HORSE

Look how he swaggers, cocks his hat, and rides,  
How on his hobby-horse himself he prides,  
He looketh grim, and up his head doth toss,  
Says he'll ride over us with his hobby-horse.

## HARD TEXTS

Hard texts are nuts (I will not call them cheaters)  
Whose shells do keep their kernels from the eaters.  
Open the shells, and you shall have the meat;  
They here are brought for you to crack and eat.

## THE CACKLER

The hen so soon as she an egg doth lay  
Spreads the fame of her doing as she may.  
About the yard she cackling now doth go  
To tell what twas she at her nest did do.

Just thus it is with some professing men;  
If they do aught that good is, like our hen,  
They can't but cackle on't where'er they go;  
What their right hand doth their left hand must know.

## THE PRETTY SWALLOW

This pretty bird, oh! how she flies and sings!  
But could she do so if she had not wings?  
Her wings bespeak my faith, her songs my peace;  
When I believe and sing my doubtings cease.

## THE LANTERN

The lantern is to keep the candle light  
When it is windy and a darksome night.  
Ordained it also was that men might see  
By night their day, and so in safety be.



## DISAPPEARING FORESTS

### The Farming of Timber

Still the world is using up its trees much faster than it is replacing them, with terrible consequences.

The fate of communities in America should warn the world. In Wisconsin a town grew up at Washburn until it had a population of 6000, all living by cutting down forests. By 1896 mills were cutting 600,000 feet of board a day; 50 timber boats were often in the bay at once.

By 1900 all the trees had been felled and the place reduced to desert. Then the great Du Pont firm used the site for a powder factory; a desert was just what they wanted.

In Louisiana a town grew up, based on timber, called Fullerton. The company that made the town, and unmade the forest, employed 2000 people. Now the place is empty and all its fine buildings forsaken. It took only 20 years to ruin a fine district.

Now better ways are being understood, but many years must pass before the U S A makes good the forests it has squandered.

Timber has to be properly farmed if men are not to waste not only forests, but soil and rainfall. In Scandinavia planting goes along with timber cutting.

## STRANGERS IN THESE PARTS

### Cayman Iguanas at the Zoo

London's Zoo is a mirror of the world in the strange forms of life that come to it from every land and sea.

Some of the strangest have just arrived from the Cayman Isles in the West Indies, where, as in other isolated islands near the Equator, creatures extinct elsewhere have lived on.

Among those brought back by the Oxford University Expedition (which included a zoologist, a marine biologist, entomologists, and a botanist) were 19 iguanas, or spine lizards, other lizards and land crabs, 36 snakes, and 22 turtles. Bringing them back was as much an adventure as getting them on board the schooner, for on the voyage to Jamaica a hurricane blew their sails away.

Fortunately the reptilian passengers did not break loose, and after their stormy voyage now rest in the peaceful part of the gardens of Regent's Park.

The Cayman iguanas will be as rare a sight as the Komodo dragon; and the turtles will compete with the giant tortoises, which sleep their long years away. All are harmless, unlike the widow-spiders, which can never be let out.

## Hands Across the Seas

For Persia, now known as Iran, a railway has just been completed to link the Caspian Sea with the Persian Gulf.

A train can now run 865 miles from Bandar Shah on the Caspian to Bandar Shapur on the Gulf, crossing the Zagros Mountains in romantic Luristan, spanning the River Abi Cesar, and bringing Teheran, the capital, within reach of the sea both north and south.

Tunnels were driven, barracks built for 50,000 men, and settlements became villages.

It has taken eleven years to build, but the best thing about it is not its value, or the resolve of Iran's progressive ruler, Shah Riza Pahlevi, to have it made, but that its construction should have been entrusted to the engineers of eleven nations: Great Britain, Germany, France, U S A, Italy, Russia, Belgium, Sweden, Denmark, Austria, and Greece. They were led by little Denmark.

This is the sort of task in which nations should combine. It is gratifying that Britain's share should have been the hardest.

## Shabby Life in the Cradle of Shakespeare

FROM Shoreditch, one of the smallest and most crowded of London's towns, came the greatest heritage of the human mind, the dramas of Shakespeare.

It was at Shoreditch that he turned for bread when he came to London, for here was London's first playhouse. It was said that here he held horses at the door, was admitted as a sort of call-boy, then set to work to patch up plays and was finally introduced to the stage as an actor.

Thinking of all this, it is impossible not to be greatly moved by the unhappy facts that have just come to light about this part of London.

"Growing up in Shoreditch" is the title of a survey of East End poverty by the Shoreditch Housing Association, and the report reveals the unhappy conditions in which many London children live out their days.

Dr Mallon, Warden of Toynbee Hall, points out that Shoreditch is a district in which the poverty is unrelieved owing to the absence of any middle-class population. There is much ill-paid labour in the district, and a great deal that is irregular and casual.

There is no room in the borough for building for rehousing, and in order that new houses may be built old ones have to be demolished. Because of the low wages paid it is difficult for badly-housed families to seek accommodation elsewhere.

The survey gives us samples of life as it is lived in some parts of East London in 1938. In one case the flat is in old privately-owned buildings, which are in a disgraceful state of repair. The stairs are dark and dirty. The washing facilities, to be shared between all the tenants, consist of some coppers on the roof, only one of which is usable.

The drains are blocked. The yard in which the children of 48 families play is very narrow and littered with refuse from the rubbish bins, which are in bad condition.

In a second case five children sleep in one bed in a back room, in which cooking, washing, and eating also take place. In another case it is recorded that even near the kitchen fire the wall is almost sodden, and when a workman moved one of the floor boards he found a pool of water. In consequence of this dampness it is not surprising that all the family suffer from rheumatism, and one son had rheumatic fever.

For children one of the unhappiest results of overcrowded homes is that they have nowhere indoors to play. Two-thirds of the schoolchildren normally play in the streets. The borough of Shoreditch, one square mile in area, contains only nine acres of open spaces, and nearly half this area is in churchyards.

Three-quarters of the houses in the district are believed to be infested with vermin, and many of them are extremely damp, causing, among other things, a high incidence of rheumatism, which affects children as well as adults.

Here, indeed, is cause for war. We beg our good Minister of Health to visit Shoreditch and forthwith to open fire upon it with his heaviest artillery.

We confess that the facts puzzle us. We thought that all slums had been scheduled and marked for destruction. *How has Shoreditch escaped observation?* It is not enough to say that old houses have to be pulled down to build new ones. Of course! But new dwellings accommodate far more people than old ones. A really fine set of flats would actually release space in Shoreditch.

## A League Against the Locust

ALL the nations are leagued against the locust, and at the international conference at Brussels they accepted Great Britain's leadership in the forthcoming campaign.

The way of striking at the locust is to discover and destroy it before it is on the wing, and by patient research during the last 20 years a number of the breeding places of their migratory swarms have been found, as, for example, adjacent to Kenya, Nigeria, and particularly by the Red Sea.

More knowledge is wanted, and it is suggested that the headquarters for the collected information should be established in London at the Imperial Institute of Entomology. Great Britain's plan is to form separate control of organisations for each of the three kinds of locust in Africa, with a central office to direct them. In Africa, which might almost be called the continent of the locust, plagues of them attack Egypt (as they did in the time of Moses), Rhodesia, and South Africa, French,

Portuguese, and Italian colonies in North Africa, and the Sudan. But Asia is also assailed, in Iran, India, and the Soviet provinces. Consequently all are willing to unite against an enemy which is as active now as it was 3000 years ago.

An interesting sidelight on the locust is thrown on a recent discussion on the locust mentioned in the Old Testament as food. Professor Bodenheimer of the Hebrew University of Jerusalem, who is also a recognised authority on the insects of Palestine, identifies it with the desert locust, and says that the descriptions of it in Leviticus apply to it when it is either in the hopper stage or when it is grown to full size.

What Moses then appears to say is that the Israelites might eat the swarming locust, "whose hordes march like armies, that destructive creature which, when it flies, obscures the sun like a veil."

Today there are twenty-six countries leagued to keep its armies from ever taking to the air.

## A Penny a Day Keeps the Rain Away

THE Southern Railway must have a mighty faith, for it is launching a scheme which is surely one of the most striking ventures of faith in humanity since time began.

*It is a service for lending umbrellas at a penny a day.*

Is there anything in the world so often borrowed and so rarely returned as an umbrella? We suspect that the umbrellas lent by the Southern Railway at any one of 30 stations will be the ones borrowed from friends and left in carriages by forgetful passengers, and no doubt it will now be possible for someone to pay a penny for the privilege of borrowing the umbrella he once

borrowed from a friend and never returned because he had unfortunately lost it on the railway.

We understand that at the 30 selected stations people who care to do so may borrow an umbrella for twopence, keep it two days, and pay a penny a day for every extra day they keep it.

We wonder how many of the umbrellas will be returned, and how many will find their way into hall-stands where they were never intended to repose? And even when an honest follower of Jonas Hanway does return an umbrella, will it be the one he borrowed, or one he has absent-mindedly picked up in a barber's shop?

## A FRIENDSHIP AS OLD AS A NATION

### French Monument to America Unveiled

Nearly all France listened-in last week when Mr William Bullitt, the American Ambassador to France, and M. Bonnet together unveiled a monument at the mouth of the Gironde.

This monument, which will also serve as a lighthouse (like the Statue of Liberty at New York) to the French port of Le Verdon, stands on the spot where the first American soldiers landed in the war. It also marks the spot from which Lafayette set out to help the American colonists in their fight for independence.

Both Mr Bullitt and M. Bonnet recalled the close friendship between their countries. Their solidarity, declared M. Bonnet, would become stronger if other nations joined their circle. They were not out for plunder, nor for the material advantage of either the French or the American peoples. Their solidarity was a spiritual reality, and, like all spiritual realities, it was quickened by being shared by others.

In supporting the French minister's plea for friendship between all nations Mr Bullitt urged that another attempt should be made to break the vicious circle of armament, economic misery, and international hatred, and he added a plea for wisdom. It was not enough, he said, to observe with a sense of superiority the worst mistakes of the new fanaticisms, which originated in part from their own lack of wisdom. If their effort for peace was to achieve anything it must be based on their ability to put themselves in other men's shoes. If ever in world history it was vital for the whole human race that the leaders of the nations should act with their eyes on the ultimate realities that moment was today.

## REDRESSING THE BALANCE

### America's Surplus Wheat For Starving Spain

America has too big a harvest of wheat this year; that is to say, it is so plentiful that prices are too low to repay the farmers for the expense of growing it.

We are getting used to seeing such statements followed by announcements that part of the crop is to be burned or dumped in the sea, but this time some people are trying to see that the surplus is not all wasted. The Church of the Brethren and the Quakers in America, both of whom have workers in Spain distributing food to child victims of the war, are asking American farmers to give them wheat for these children.

One of the workers in Murcia describes how much the bread will mean. Not only the refugees, but the whole civil population is rationed to one slice of bread a day, so the American undertaking to feed 4000 schoolchildren there may save their lives.

## Blarney the Next Best Thing

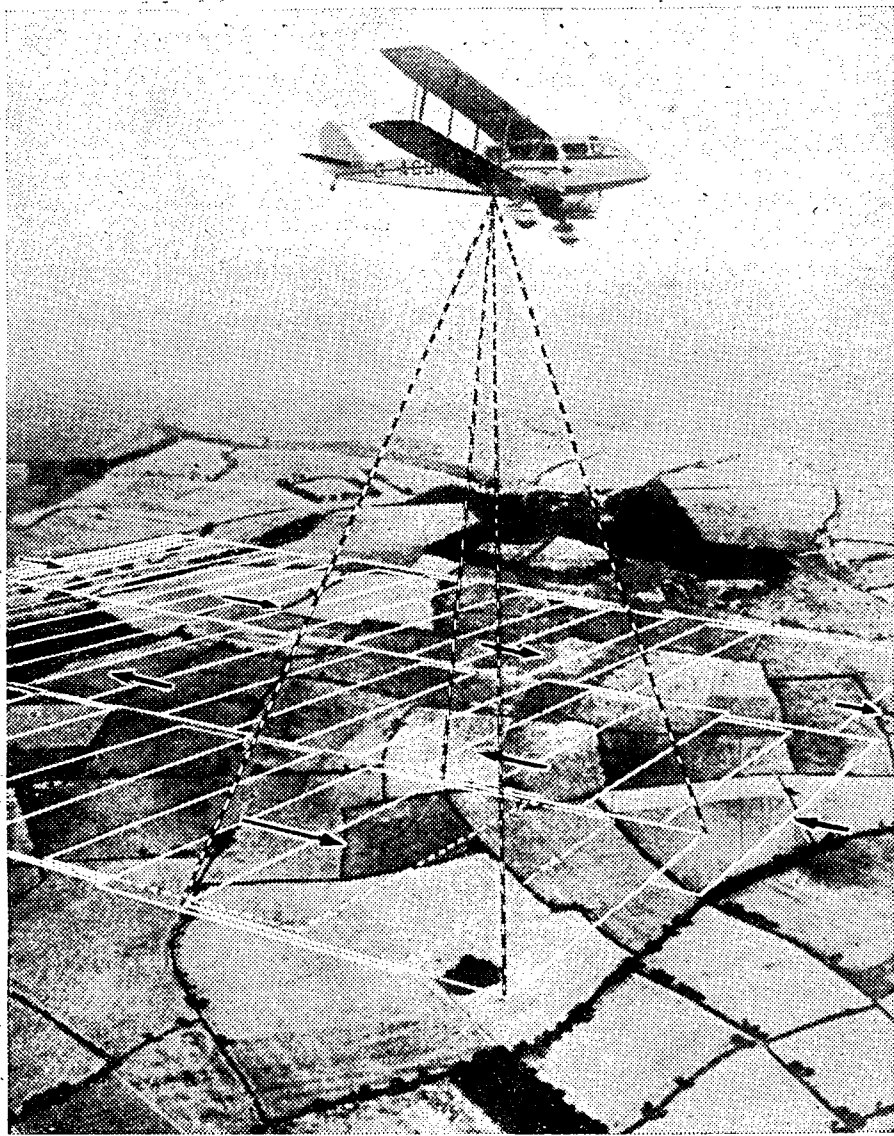
Los Angeles is determined to have a bit of blarney. Ten tons of blarney rock have been shipped from County Cork to America.

For a number of years patriotic Irishmen have made approaches to the owner of Blarney Castle for the purchase of the castle, or of that bit of it which is a corner stone of its tower and is called the Blarney Stone. It is supposed to confer on anyone who embraces it such an unequalled glibness of tongue that blarney has passed into the language.

The owner has remained obdurate, but as Blarney Castle will certainly remain where it is the Americans have done the next best thing by purchasing a quarry near it for their own supplies of blarney.



# MAKING THE PATCHWORK MAP



Mapping from the Air—A series of photographs is taken, each overlapping the next in a forward direction by 60 per cent, and each line of pictures overlaps its neighbour by about 30 per cent

NEARLY 200 years ago the exact mapping of the British Isles began; and the work of this Ordnance Survey (as it is called) never ends. It is beginning anew with fresh attempts to make it right to the minute.

Let us glance at the way it proceeds, beginning with the steps to be taken in making any map, even of a back garden. The first thing to do would be to measure the garden and the distance of the paths and the flower-beds in it from the enclosing walls and from one another. That is what is done in the Ordnance Survey of a country like ours. The distances of everything in the land from everything else are measured. It has to be done in bits, and the bits pieced together, as in a patchwork quilt; and the bits are triangles.

If beneath the finished maps we could discern their framework it would look like thousands of triangles all joined together, so that the surveying or mapping is based on triangulation. It would be simple to make a map of a garden without splitting it up into a crazy pavement of triangles; but if the project were carried farther so as to include the common or the neighbouring fields the triangle would be the only way. The garden's outer wall might be taken as the base of the triangle, and a distant tree, or a pylon, or a church spire taken as the apex.

Then by setting up the instrument, a theodolite, used by surveyors, at each end of the wall the angles made by lines joining it to the apex could be exactly measured. In the triangle so completed the length of the base is known, and the size of both base

angles. Consequently the lengths of the sides of the triangles become known by easy calculation.

From the apex—tree, pylon, or church spire—and from one of the sides of the triangle thus estimated other triangles can be cast out, so that in course of time the whole district can be covered with a diagram of measured triangles. In them the positions of objects can be filled in.

## Thousands of Triangles

This is a very rough description of the way in which the map of the whole country is made, and how the places and objects in the country are set down in it. There are thousands of these triangles, with their apexes marked on the skeleton maps, and because angles and distances are calculated by trigonometry the apexes are called trig points. One of the parent triangles, from which all the others are thrown out, is on Salisbury Plain, where the base line is measured as carefully as the standard yard.

These trig points are not mere symbols on a map: they exist actually on the landscape. It will occur to anyone who has followed the explanation thus far that, though the method might easily be applied to a flat country with few obstacles, the difficulties would multiply with mountains and hills, rivers, lakes, or seas. Indeed, they do; and the surveyors have to climb mountains as part of their task, and make their angular measurements of a selected distant point—by heliograph on sunny days, or lamp signals.

The surveying party may have to camp out for weeks in the mountains; and when they have measured the angles and distance between them and the next trig point they have done only half their work. The trig point has to be set up on the landscape for future reference. On high places the trig point becomes a concrete pillar, with a place hollowed out on top in a particular pattern, so that when a theodolite or other instrument is set up on it in future the observations made therefrom can be exactly repeated and confirmed or corrected.

## What is Sea-Level?

In the same way that the positions of points have to be ascertained on a horizontal framework their heights above the ground must also be measured, and these heights reduced to what we call sea-level. What is sea-level? It varies at every hour of the day and every day of the year. It cannot be measured from the crests of the waves of Britannia's realm, so an ingenious way of arriving at a scientific compromise was found.

An elbow-shaped shaft was cut to run from the shore into the sea. The sea filled up the well of the shaft and a float on top of the well-water rose and fell with the tide, but was unruffled by the waves. Hourly readings of the height of the float for six years furnished the average height of the sea-level round our isles. This is what the survey takes as sea-level. The whole country is covered along most of its roads with marks inscribed with the height they are above this sea-level.

It is not always easy to find high spots for the trig points of the



Worlds in the Making—Painting and sticking maps on globes of various sizes in a Willesden factory



# OF BRITAIN

triangles. The Ordnance Survey makes them. In the flat East Anglian country special observation towers of steel (something between pylons and lighthouses) are set up, so that observations and triangulations can be initiated from them. One of the towers is 110 feet high, another 65 feet, and Ordnance Survey crews are being trained to erect them and make right use of them.

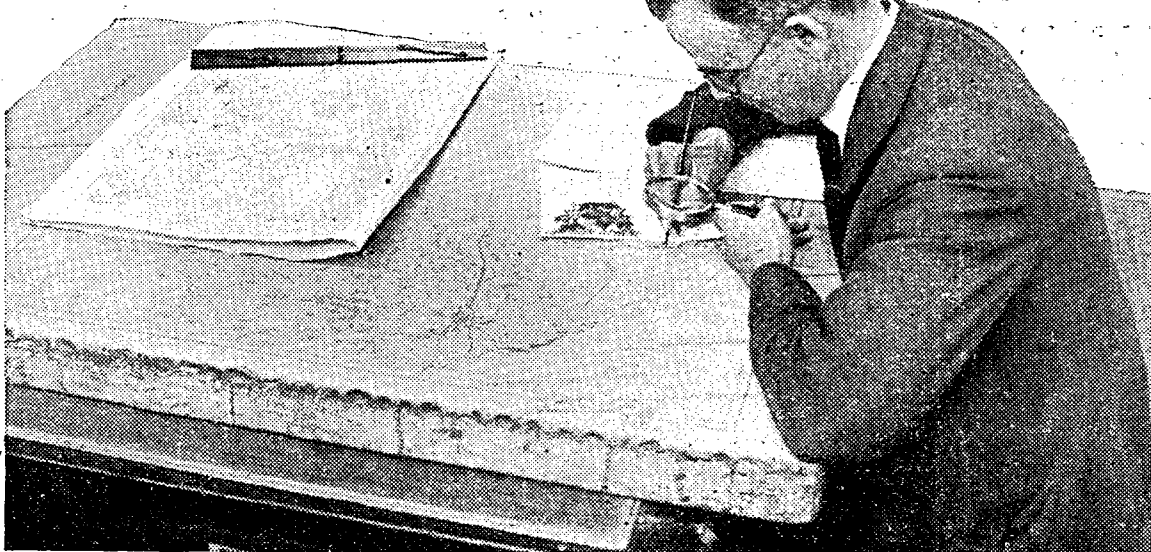
These are some of the details of the surveying which produces the Ordnance Survey maps that everyone knows, and some which few see. The largest are on a scale of 25 inches to the mile. There are 50,000 of them each about a yard square, and they show not only your garden but the greenhouse in it. The smaller scale maps are reduced from the big fellows; but every reduction map has to be drawn separately. There is no easy photography about it. The map-maker may spend hours in putting a name on the map which is to be printed from the stone, and he employs not a pen but a brush in this exquisitely refined and delicate work.

## Surveying by Plane

But if a draughtsman has to make the maps photography is used to make surveys from an aeroplane. Plane surveying, air photography, is a new science. It sprang from the war; it is being extensively employed in the wild and desert places of the earth, as well as in some like areas of New Zealand which are cultivated. It produces what we may call large-scale results procurable in no other way. It tells the oil seekers and the prospectors the lie of the land. It maps forests and cities, and has produced some astonishing results in Great Britain by disclosing below the surface of cultivated soil the sites of the temples and places of worship of the Bronze Age men.

Lastly comes the work of correcting, which is endless. A map is flat, the surface of even a small patch of the world like the British Isles is curved with the earth's curvature. This has to be reckoned with, accounted for, and reduced to such proportions as will make the maps accurate to the hundred-thousandth of an inch—which they are.

A draughtsman of the Ordnance Survey working on the stone for lithographic reproduction

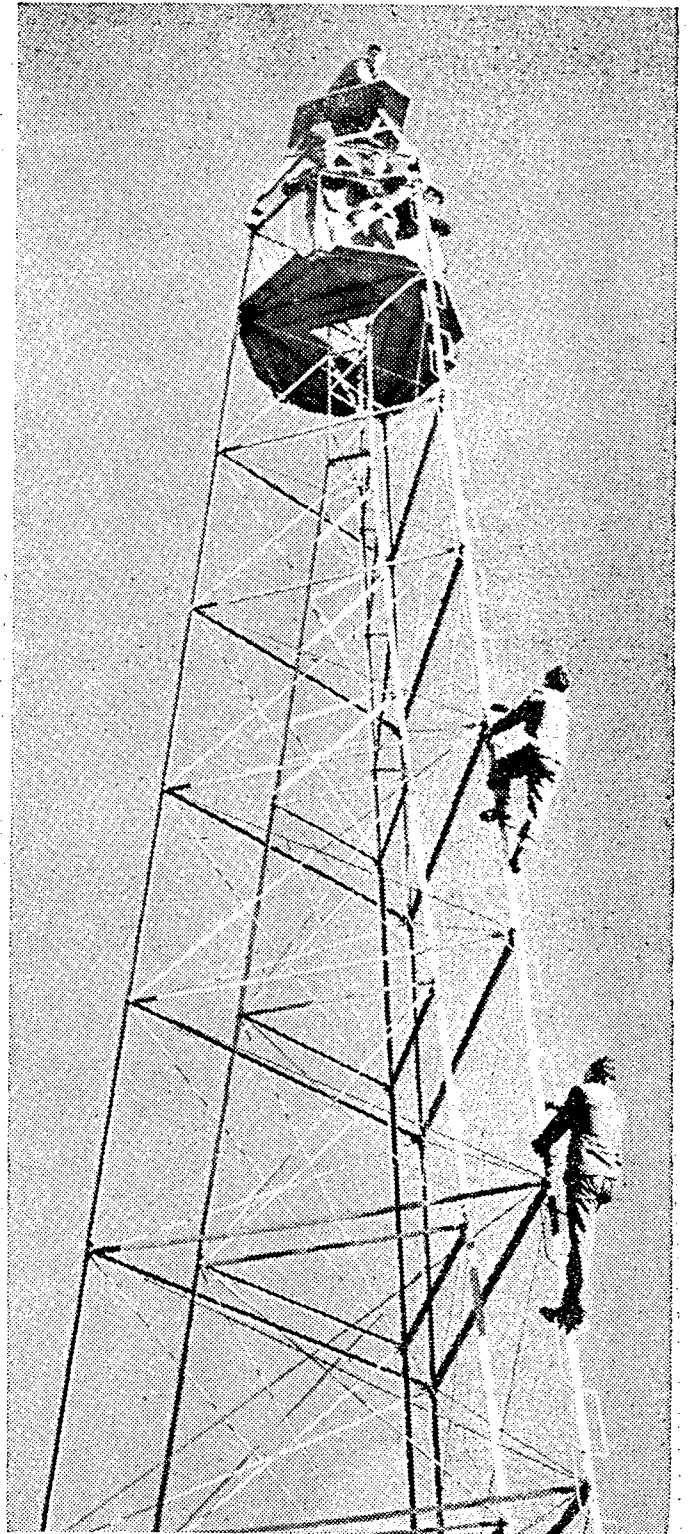


Adding to an Ordnance map the changes in a district revealed by aerial photography



Using the theodolite traverse at the Ordnance Survey Instructional School, Chislehurst

(The two pictures of aerial photography are by Aerofilms)



Up in the Air and Down on the Ground—One of the great observation towers used by the survey men in flat country; and, below, taking a precise measurement in a street





## 400 YEARS AGO

### Destruction of Becket's Shrine

#### A PAGHAM LINK THREATENED

Fears are expressed that building developments may spoil for ever the beautiful little Sussex village of Pagham and its ancient harbour, and blot out a link with the history of Plantagenet England.

During his term as Archbishop of Canterbury Thomas Becket preached to the Pagham fishermen in a church of which remains are still existing, but threatened, it is said, by the new march of the builders.

There is real concern over the menace to the scene of Becket's ministrations, but nobody seems to have noted the 400th anniversary of something in connection with Becket that shook all Christendom to the heart.

Becket perished in his own cathedral in 1170. Within three years he was officially declared a saint. At the end of 50 years his body was transferred from the crypt to a magnificent shrine in the choir, with Stephen Langton of Magna Carta fame to conduct the service, with young Henry the Third, fresh from founding the new Abbey of Westminster, to lead the procession, and with immortal Hubert de Burgh among those who carried the coffin to its new resting-place.

#### The Canterbury Pilgrims

The shrine became a place of pilgrimage to which came kings and princes bearing gifts from all parts of Europe; and to rich and poor throughout Britain, one such company and journey forming the subject of Chaucer's deathless Canterbury Tales.

In time the shrine was loaded with treasure such as had never before been seen in our land; the finest diamond in the French royal jewels, the crown of Scotland, innumerable precious gems of all sorts, and gold and silver beyond price, were lavished on this murdered man's tomb, at which, for the next three centuries, superstition and knavery combined to represent miracle upon miracle as happening.

At last, exactly 400 years ago this month, the almost incredible happened. Henry the Eighth sent men to Canterbury who smashed and rifled the shrine that was built to last for ever. They burnt or scattered the bones within it; they carried off the gold and jewels in two great coffers borne by eight men, and lesser riches filled two carts. There remained of Becket and his world-famous shrine nothing but a memory.

#### All That is Left

His pictures and statues were broken or burnt, his name was erased from every book and manuscript in the land; all that remained of him were a few pictures overlooked in the loveliest of the cathedral's 13th century glass.

All Christendom trembled and shuddered at the act, but what was done to the Becket shrine was only the prelude to Henry's defiance of the Pope, and his first dramatic demonstration of the fact that the Crown in England was to have the ascendancy over the Church as well as over the law and the lives of the people; the break-up of the monasteries followed.

Pagham winces for its Becket memorials, but 400 years ago the whole Christian community shuddered for this greater work of destruction, this break-up of the most wonderful shrine in Christendom.

#### Last Month's Weather

LONDON	RAINFALL
Rainfall . . . 2.71 ins.	Chester . . . 4.05 ins.
Sunshine . . . 158 hrs.	Falmouth . . . 3.62 ins.
Dry days . . . 24	Birm'ham . . . 3.30 ins.
Days with rain . . . 7	South'pton . . . 2.08 ins.
Warmest day . . . 1st	Tynemouth . . . 1.88 ins.
Wettest day . . . 17th	Aberdeen . . . 1.14 ins.
Coldest day . . . 29th	Gorleston . . . .35 ins.

## FATHER OF THE INDIANS

### Rondon of Brazil Comes Home

THE Brazilian who is known to his fellow countrymen as the Father of the Indians has just made his last official journey across his vast State, and has settled down, at the age of 73, to pursue those quieter studies which his active life for half a century has limited.

This extraordinary man is General Mariano da Silva Rondon, who has become a national hero by virtue of his daring explorations in difficult country inhabited by uncivilised Indians and by the work he has done in bringing to these peoples, whose blood runs in his veins, the benefits of good government and a prosperity they would otherwise not have known.

General Rondon has for many years been at the head of the national service for the protection of the Indians, who number at least half-a-million in that great country which is 27 times the size of ours. Indeed the General has declared that there are three times that number, and it is certain they are increasing owing to the work for which he has been responsible.

The Protective Service was organised in 1910, and there are now a score of Government Reservations in which native Indians receive instruction and guidance. The various tribes speak different languages, but General Rondon knows them all and can talk in them over the wireless. He has laid 400 miles of telegraph wire and hundreds of miles of roads in the wilds, including an important road of 360 miles linking Goyaz and Cuyaba, a little town in Matto Grosso (the Great Forest).

A glance at the map of Brazil reveals hundreds of the tributaries of such great waterways as the Amazon and the Parana, and these have been estimated as providing 60,000 miles of navigable channels. Along them, and by jungle paths on their banks, the General has pioneered a way to unknown tribes and villages in which the blow-pipe was the weapon used in hunting for food. Nowhere in the world is Nature more prolific in grandeur and beauty, and our great naturalists and travellers, like Alfred Russel Wallace and Henry Savage-Landor, have written glowing descriptions about this vast basin of the Amazon.

As interesting to future students of the human race will be those annual reports which General Rondon has written for his Government, reports no less valuable because their author is the most modest of men, anxious only to serve the people under his care.

Generally speaking, all the Indians in Brazil are civilised today. In spite of the tales of sensation-seeking travellers they all wear clothes; and there are certainly no cannibals among them. The Brazilians give most of the credit for the great change that has been effected to General Rondon, the man who only sleeps five hours out of the 24, and has ever been ready to go forth to the wide spaces of Brazil.

His work on establishing the boundaries of the State has been invaluable, and it was from such work in the frontier town of Leticia that he came home to be fêted the other day.

## A Farmer and His Hobby

A TRAVELLING correspondent of the C N, finding himself in the lovely Derbyshire Peak country, dared to knock at the door of a lonely farmhouse and ask for a cup of tea.

The farmer who came to the door said he did not usually do that sort of thing, but if the visitor would not mind waiting he would do his best. So in he went, and was so struck with the beautiful but unusual furniture that he could not help commenting on it; and this is the story the man told.

When the war broke out he went to fight, leaving his wife to look after the farm. One day during a blizzard in the first winter of the war the brave woman went out to rescue some sheep from a drift, caught a chill, and died. The war dragged on and the farmer was made a prisoner of war; and it was while he was in confinement that he found he could make things with a claspknife, and began fashioning little toys, some of which he gave to German children. After the war he came back to the hills and went on with his farming. He was a lonely man, and to pass away the time

in the long winter nights, he started making bits of furniture.

Today the result of 20 years labour of love is seen. There are good comfortable chairs, a couch, a bed, a beautifully carved staircase, a panelled room fit for a king to dine in, and a rare enlarged table modelled on a table in Nash's house at Stratford-on-Avon (said to be made from Shakespeare's mulberry-tree). On each chair is cut the coat-of-arms of some Derbyshire town, and along the back of the couch is carved a group of symbolic figures telling a local legend.

Perhaps the most interesting thing of all is the fact that all the work has been done with a simple tool, a strong claspknife, a heavy piece of wood being used as a mallet. And for polishing he has taken stones from the land; no nails and no glue have been used. Even the floor coverings are made of cowhide home cured and tanned. There is a rack with scores of walking sticks each differently carved, and in odd corners the eye meets quaintly carved figures and flower vases hollowed out of pieces of wood. Coldfield Farm is a warm place.

## August's Strange Tale

SEPTEMBER came in with a red sun shining through the mist to promise golden weather for the rest of the harvest.

Of late years September, though it used to rank as a rainy month, has been counted on by the holiday maker to make up for August's deficiencies. This year its work was cut out for it, for August was a month of as many weathers as March.

Over a large part of the country, especially in the east and south-east of England, it prolonged the drought which set in before the summer began to ruin the strawberries and dim the prospects of every fruit tree except the cherry. But in a number of places the dry weather was broken by thunderstorms so violent as to bring the rainfall for the month up to more than the average. Torquay led the way with a downpour of rain of more than six inches in less

than 12 hours. It began with a thunderstorm, and of the rain it might be said that it did not pour but fell down.

Heavy falls of rain, if not so heavy as this, swept over the whole country from Wales to East Anglia. Sometimes they brought floods. London had its share, though the downfall was patchy; and, taken as a whole, August was another of the months this year to record a deficiency of rain.

It also showed a deficiency of sunshine, but, strangely enough, no deficiency of mean temperature. August, like other months of the summer, was warmer than the average, though towards the end it had several night frosts, accompanied by early morning fog. In Yorkshire there was actually a fall of snow a foot deep in the drifts.

Altogether a strange month. We expect better things of September.

## THE NILE FLOODS

### Cairo an Island

The Valley of the Nile has been suffering from the worst floods it has known for ten years. Bridges have been submerged, and the only means of communication in many parts has been by boat.

The soil borne from afar in the waters of the Nile, settling slowly on the land which it periodically overflows, makes Egypt a scene of plenty, a strip of abundant fertility flanked on either margin by sterile desert. In abnormal years such as the present one, the river, coming down from its source in undue measure, drowns great parts of the land it has given.

An immense flood, surging in increasing volume towards the estuaries in the great delta, has necessitated the opening of canals to take some of the surplus from the main stream away into the land itself, where, so heavy is the inundation, that great tracts of cotton fields have been swamped and their harvest ruined, while all the islands in the river towards Cairo are submerged, and Cairo itself converted into an island.

#### An Ancient Terror

The terror is as ancient as our knowledge of the land. Each flood obliterated the landmarks dividing property from property. Boundaries were marked by single blocks of stone or by small heaps of stones, but after each flood the land had to be re-surveyed and allotted. Many of these boundary stones, some as old as Moses, are in the British Museum, each with a tale of history for ever locked in its substance.

The removal of these landmarks, an easy task for an unscrupulous neighbour, was one of the most serious of offences in Old Testament days, and against such a crime a terrible penalty was pronounced.

The matter was startlingly brought home to the Macaulay household one day when Tom, the future historian, finding that the maid had thrown away as rubbish the oyster-shells with which he had marked his own tiny estate in the little garden at Clapham, remembered what he had read in the Book of Deuteronomy, for, although but a four-year-old, he had mastered the bulk of the Old Testament.

Hot with indignation, he burst into the drawing-room, where his mother was entertaining company, and exclaimed, "Cursed be Sally, for it is written, Cursed is he that removeth his neighbour's landmark."

## Something Like a Mistake

Professor R. F. Peel, protesting against a foolish misinterpretation by certain newspapers of remarks addressed by him to the British Association on rural marriage customs in the Midlands, takes occasion to tell an amusing story of a still more foolish blunder in the reporting of a lecture on the Moon by Professor J. B. S. Haldane.

The lecturer mentioned that the rough and broken surface of the Moon was known to be composed largely of silicates, substances similar in composition to glass. What was his astonishment to see a newspaper report of his discourse headed: Scientist's amazing discovery; Moon made of broken glass.

Perhaps Professor Peel may be interested in the story of a yet more startling result of misguided ingenuity. At a time when negotiations that preceded the Zulu War were in progress a cable reached England from Africa, reporting that something had occurred to displease the natives, adding "The Zulus have taken umbrage."

Out came a newspaper poster next morning with the startling line, "Capture of Umbrage by the Zulus."



## THE POLE WHO DIED FOR NAPOLEON

### Dramatic Episode at the Battle of Leipzig

Our mention of Josef Antony Poniatowski, Marshal of France for a day, in last month's story of Stanislas, King of Poland, sent a Scottish reader to his bookshelves to read again the events of that day in a contemporary book. He was so thrilled with the story that he has sent us the book.

This little five-shilling work is a translation of accounts by eyewitnesses of the famous Battle of Leipzig fought in October 1813, and known in history as the Battle of the Nations, from the numbers taking part in it. So heart-rending a picture was drawn of the distresses of the unfortunate inhabitants of Leipzig and its neighbourhood as a result of the battle that its publisher, Mr Rudolph Ackermann, the Saxon art-dealer who had settled in London and who had prepared Nelson's magnificent funeral car, offered all the profits from its sale to "the alleviation of the complicated woes of the devoted martyrs to the emancipation of Europe." Mr Ackermann did more, he raised £100,000 from the British public to send to the King of Saxony, a sum which our Parliament doubled.

#### The Story of an Eyewitness

The eyewitnesses tell us something of that terrible battle in the War of Liberation against Napoleon in which 300,000 men took part and in which nearly 100,000 were killed or wounded before Napoleon was worsted. In its pages is the detailed account of the last moments of Josef Poniatowski.

The nephew of the last King of Poland, there is no doubt (we read) that he was cajoled into a subservience to the views of Napoleon by the flattering prospect of the restoration of his country to its former rank among the nations of Europe.

When the retreat began Josef was charged by Napoleon with the defence of part of the suburbs of Leipzig with only 2000 Poles assigned to him. Seeing the French on his left in full retreat and the bridge completely choked up with their artillery, he drew his sabre, turned to his officers and cried: Gentlemen, it is better to fall with honour.

With these words he led a rush upon the advancing columns of the allies. He had already been twice wounded that week, and was now shot in his left arm. When his foes hastened to take him prisoner he cut his way through them, receiving another wound, threw himself into the River Pleisse, and reached the opposite bank, leaving his horse in mid-stream.

Mounting another horse, he made for the River Elster, which was already lined by Saxon and Prussian riflemen. Seeing them coming upon him on all sides he plunged into the river, but instantly sank.

So in that dramatic moment ended the hopes of Poland for over a century.

#### What a Fisherman Found

Five days afterwards a fisherman took his body out of the river. He was wearing his gala uniform, its epaulets studded with diamonds. His fingers were covered with rings set with brilliants, and in his pockets were snuff-boxes of great value and other trinkets. Many of these treasures were bought from the fisherman by Poles who had been taken prisoner, evidently, concludes the eyewitness, for the purpose of sending them to his family.

As to the man who had given him his field marshal's baton, the disaster at Leipzig sealed the doom foreshadowed at Moscow, foreign foes crossed the French frontier after 20 years of effort, and within a few months Napoleon was pacing to and fro a prisoner on Elba.

## Young England by Canterbury's Ancient Walls



Boys of many generations must have fished in these waters of the River Stour by the massive towers of Canterbury's West Gate. Rebuilt five and a half centuries ago, West Gate is the last remaining of six gates of the old walled city.

### Waterspouts in the Channel

Waterspouts, which are rare in our part of the world, have been seen in the English Channel this month.

An airman has described one around which he circled for ten minutes as about 50 yards wide and 1200 feet high. When this one burst another formed.

These striking columns of water are caused by local whirlwinds which rotate at immense speed in the opposite direction to the hands of the clock. Vapour in the rarefied column of air becomes cooled and forms fresh water, the funnel shape at the top of the spout being due to reduction in the friction as the water is forced upward.

The waterspout is a miniature of the tornadoes that do so much damage in the tropics, while the tiny whirls of dust we sometimes see on a country road or on a hard tennis court are caused in the same way.

### In Nansen's Footsteps

Last autumn the North-East passage north of Russian Siberia was blocked, in spite of all the Soviet's effort to keep it clear.

Its clearance was part of the plan of making a new Arctic Russia, with a possible outlet towards Vladivostok; but five ice-breakers and a score of merchant ships were caught in the grip of early winter and the ice.

This autumn most of the ice-breakers and a number of merchant ships have at last got clear, though they have still some way to go through the floating ice before they are safe. But one of them, the Sedoff, with damaged steering gear, is firmly held, and is being slowly carried north by the Polar drift. She has 15 men aboard, and looks like spending another winter in the Arctic.

It seems that she may involuntarily follow the journey of Nansen's Fram and, crossing the Polar Ocean, at last come out near Greenland.

### STRANGE BONFIRE Smoke Across the Sea

One of the strangest bonfires in our time was set ablaze by the Soviet, who burnt a few forests to clear a strip of country, possibly for fortifications.

The land was on the Russian Estonian frontier, near the river Lugo on the gulf of Finland. But the smoke travelled far beyond this huge inlet, hanging like a pall over part of Estonia, and drifting 350 miles across the Baltic to Stockholm. There the burning timbers could be smelt, and the smoke was like a fog at midday.

With a favouring wind smoke will travel very great distances. Sometimes in September or October, during an East wind, one or two bright, clear days are followed by curiously hazy ones on the East coast and as far inland as Cambridge. It is believed that this haze is produced by the smoke from the chimneys of Essen.



## TELEVISION IN COLOUR

### An American Inventor's New System

By a Scientific Correspondent

Now that natural colour photography is becoming so popular, and so many colour pictures are seen in the kinemas, inventors are naturally straining every nerve to accomplish television in colours too.

The idea is not new by any means; but then inventors have been working for over 70 years to obtain ordinary photography in natural colours! The Bell Telephone Company actually demonstrated television in colour as far back as 1929, using three sets of photocells to transmit three sets of electric currents corresponding to the blue, green, and red elements of the pictures.

Modern colour photography depends on the fact that all colours in Nature can be reproduced by different mixtures of these three primary colours, and television is following along the same lines. In 1933 Mr Thorne Baker invented a system in which a single scanning disc was fitted with alternate blue and orange glasses, and by means of two primary colours only alternate electric signals were transmitted to the receiver. These recombined to give natural colours to the eye, the scanning disc of the receiving instrument being fitted with the same alternate blue and orange filters, and kept in strict synchronism as regards colour with that of the sending instrument.

A new and simplified means of colour television has recently been invented by Mr Robert Harding in U.S.A., in which colour glasses and suitable lenses break up the scene to be televised and create one separate image for each of the primary blue, green, and red colours. The coloured images are directed upon a new type of scanning disc, and are converted into electric signals and transmitted.

An exactly reverse process at the receiving end recombines the various colours, and a natural colour picture is thrown on the screen.

## THE PROBATIONER NURSE

### A C N Reader on Her Work

Our recent comments on the lack of candidates for the noble profession of nursing have brought us a letter from a lifelong reader of the C.N., a probationer in a big hospital in the Midlands.

She says her hours are good, 48 hours a week, and also the food, but most of the time of the junior is spent in scrubbing and cleaning because it is impossible to obtain women to do this menial work. To make matters more difficult, most of these tasks have to be performed in the two hours before the doctors visit the ward early in the morning, and there is not time to do them properly.

Our reader likes the actual nursing, and as the hospital is in a mining district there are many cases of accidents to be treated. Often left in charge of the ward at the busiest time, she tries to put the patients first, though she may be reprimanded by the seniors on their return because she has been unable to find time for some routine job.

In spite of her joy in the work, to which she has looked forward for years, this young girl is thinking of changing her occupation at the end of the three months' trial period instead of signing on for her full four years' training. If we had more nurses, she declares, the life would be ideal—the noble calling which it should be; but the present necessity of rushing through so much charring is unattractive and even repulsive to some of the secondary school girls.

## FIGHTING HARD TIMES

### Y M C A Marching to Its Centenary

THERE are only half a dozen years to go before the Y M C A celebrates the centenary of its founding by Sir George Williams, and it is amazing to reflect on what a splendid organisation was begun by the young warehouseman of St Paul's Churchyard.

The Y M C A has always taken its full share in the hour of national need, as the window in Westminster Abbey in memory of its work in the Great War bears witness. Today, with the Distressed Areas calling for help and their youth in dire need of encouragement, it is doing all it can to bring hope to the unemployed and to train them in work.

#### The Open Door

Every local centre is an open door to the young man in whatever part of our island he may dwell; but it is as a national body that the Y M C A is rendering community services of the utmost value. The Ministry of Labour recognises this work by a grant, but the subscriptions of the public are essential for most of the schemes in hand.

With a long and wide experience of the needs of young men, the Y M C A is specially suited for assisting what is known as the plan for the Junior Transference of Labour. Its problems consist of the lack of training and the lack of fitness in the lads from areas which have been under a cloud for so long.

The reconditioning (how humiliating it is that we must use this phrase about boys from 14 to 18, the best years of life) is being done at Llandough Castle in Glamorgan and at Pennine Grange near Huddersfield, where lads mentally or physically unfit for industry are trained for a few months, while in the little wooden buildings so familiar to visitors at Skegness as many as 360 boys a year receive three weeks' training.

For six years now the Y M C A has been training boys for agriculture, boys who are unemployed or in blind alley jobs, and great success has resulted from their efforts. For two years 70 per cent of

the 300 boys trained have come from the Distressed Areas. They live at Y M C A hostels at Bristol and Boston Spa in Yorkshire, while one little group actually lives at Flint Hall Farm, Hambleden. Farmers in the neighbourhood cooperate with the hostels in training boys in courses of from eight to twelve weeks, when permanent employment is found for them at the full wage rates of the local Agricultural Board. Until that day these boys are fed and clothed by the Y M C A and given a shilling a week pocket-money, and when they go to their permanent jobs they are fitted out with clothes.

All, however, are not suited to country life, so at Plaistow there is a training school for domestic workers, waiters, and so on, 75 being trained a year.

Another very valuable work is the housing of boys who have found work in London. In Kennington, Hoxton, Bayswater, and Hornsey Lane are homes where boys may live for six or twelve months, and it is found that when they leave they join the Old Boys Club and keep in touch with the Y M C A.

#### Seaside Camps

There is one other branch of work in which the Y M C A is helping the Special Commissioner and the National Council of Social Service, and this is concerned with schoolchildren under 14 in the Distressed Areas. It provides six camps by the sea where children come with their teachers for normal schoolwork. As many as 9000 are passing through these camps this year. Perhaps they should not be called camps, because they are wooden buildings with every comfort and full staffs; indeed, the kitchens are fitted better than many hotels.

The scheme for the transference of schools from town to country for a few weeks each year is well on the way, and the Y M C A in the Distressed Areas has shown how it can be done, as it has shown the way in many other departments of social life for nearly a century.

## The Worldwide Newspaper Will Come

THE world is getting so small that every country is impatient to get news promptly.

One of the biggest publishers in the United States is arranging to send photographs of the pages of a magazine by air to 21 cities all over the world, so that a limited edition of the magazine will appear simultaneously in London, Paris, Rome, Berlin, Singapore, Capetown, and so on.

Whether it will be necessary for these pages to be in the form of photographs will remain to be seen, for already whole pages of printed matter, handwriting, or photographs can be sent by wireless on a simple facsimile machine that can be attached to any television or wireless set. Although regular wireless transmissions of printed matter and news letters are not yet taking place, at least three of the big radio organisations in America are experimenting with them. Hundreds of successful tests have

been made, and it is planned to put a receiving set on the market costing about fifty pounds which will receive by wireless typewritten messages or photographs within twenty minutes. A roll of chemically-prepared paper passes through the machine, and an electric pen working at incredible speed reconstructs each instant a facsimile of the letter or design on the paper which is passing before a photo cell, the current from which is impressed on the wireless carrier wave. It will be possible to transmit within an hour the contents of a small newspaper to many towns and cities from a central office.

By the new process of high-speed offset-lithography it will be possible to prepare plates for printing within an hour or two of the reception of the wireless facsimile, and put the wireless news on the printing press. It will be possible to have newspapers printed all over the world at the same time.

## A Yorkshire Mystery

YORKSHIRE folk are still hoping to solve an old puzzle.

There is in a cabinet in a museum belonging to a North Ribblesdale society of antiquarians a small piece of slate which has long been a mystery. It was found in 1870 by three Settle labourers during excavations in the Victoria Cave. The fragment was given a home in the museum of Giggleswick School, and there it was seen by many interested visitors for years, till one day the fragment vanished. Last year it was found behind the showcase, and now it is again the centre of interest.

There would be nothing remarkable about this fragment were it not that some scratches on it, which seem to have been the work of cave-dwellers about 1100 years ago, are now suggested as standing for R A M R. Alone the letters mean nothing, but the interesting idea has been put forward that they are the first part of the name Ramric, well-known to Anglo-Saxon students.

Ramric, we are told, was a Manx poet who lived between 1050 and 1200, but why part of his name should be found on a slate in a Yorkshire cave no one knows.

## A NEW PARACHUTE

### To Open Automatically

Aviation has naturally bred free use of the parachute. Frequently we hear of new drop records made by daring men—and not infrequently of fatal accidents.

Military aviation has reached a point at which considerable numbers of men are moved from point to point, depositing themselves by parachute. Soviet Russia's army, which, it is declared, is the greatest in the world, seems to lead the way in parachute work. A Russian general states that he can carry an entire battalion inside an enemy line by aeroplane and parachute.

When a parachutist descends he has to open the parachute during his fall; many people do not realise this. It can be imagined that to pull the release cord at the proper moment while falling must be a great nervous strain upon the beginner.

Now two Soviet airmen have invented a self-opening parachute. The device automatically opens the parachute at from five seconds to two minutes after the jumper leaves the aeroplane. The time is set to suit the height at which the jump-off is made. The device does not prevent the jumper from opening the parachute in the ordinary way, so that failure of the mechanism is provided for. The tests have been remarkably successful.

## A FABLE TOO LATE FOR AESOP

### The Hen That Lived Again

This little story, which we heard a day or two ago, sounds like one of Aesop's fables.

A motor-cyclist in the Yorkshire dales had the misfortune to knock down a hen as it was crossing the road. He went to apologise to a woman who was standing at a gate near by.

"It is all very well to say you are sorry," said the woman, "but sympathy doesn't help very much. I have lost one of my best hens, and I think you owe me seven shillings."

The cyclist felt that this was too much, and he offered five shillings; but she refused to take less than seven, and became very angry when he declared that five shillings was a fair price for the bird. At last, as the woman was so insistent, he put his hand in his pocket, and was about to pay the seven shillings when the hen, which was still lying in the road, gave a flutter, stood up, and ran through the hedge.

"Good morning," said the cyclist, going off with his money in his pocket.

We feel sure that Aesop would have added, by way of a moral, that *It is sometimes wise to be satisfied.*

## As Bright as a New Sixpence

After stainless steel, we find, comes stainless silver.

A new way of covering silver with an invisible film has been found by two Cambridge metallurgists. The result of the experiments of Dr G. J. Thomas and Dr L. E. Price is that the fortunate people born with silver spoons in their mouths will never find them tarnishing.

The secret of stainless steel is that of covering it with a film of metal combined with oxygen. The new alloy film for silver consists of a very small amount of aluminium treated in an atmosphere of hydrogen and water vapour. When it emerges from the treatment the alloy is covered with an oxide of aluminium, very hard, but so transparent as to be invisible.

If it will resist wear and tear the housemaid who has to clean the silver will rise up and bless it, for no plate powder will ever be required.



## CAPRICORNUS THE SEA-GOAT

### Its Grand Solar Systems

By the C.N. Astronomer

Jupiter, which still continues to be the brightest star of the southern sky in the evening, has now entered the constellation of Capricornus and can be seen gradually drawing nearer to its interesting star, Delta.

Capricornus, the Sea-Goat, dates from prehistoric times, its origin being lost in the dim past and its earliest presentation as a Sea-Goat being found in early Babylonian remains. At a much later period the Greeks regarded it as their god Pan, the god of Nature; so, with the fore parts of a goat but with the hind parts as the tail of a fish, as Capricornus has always been represented, the occupants of both land and sea were symbolised in one Greek deity.

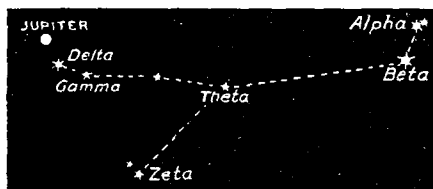
#### The Horn of Plenty

The horns of the Sea-Goat were also used to represent Plenty in Nature by the familiar Cornucopia, or Horn of Plenty, which is usually represented as filled with the fruits of the earth. They thus provide additional evidence of the very great antiquity of Capricornus, as this was the constellation in which, 12,000 years ago, the Sun was placed during the fruitful months of July and August; whereas now the Sun passes through Capricornus in January and February.

Capricornus now stretches across our southern skies to the right of Jupiter, its chief stars being easily identified from the star-map.

Delta, the third magnitude star a little way to the right of Jupiter, is actually about 50 light-years distant, whereas Jupiter is only 35 minutes away as measured by the speed of light; so, while Jupiter is at present only about four times farther than the Sun, Delta is about 3,164,000 times farther. Delta is composed of two suns which together radiate about 13 times more light than our Sun. Their centres are just over a million miles apart, and they whirl round and round in orbits about 3,500,000 miles in circumference in little more than a day.

Alpha in Capricornus can be seen with the naked eye to be composed of two



The chief stars of Capricornus, showing also the present position of Jupiter

stars, the lower and brighter one being known as Prima Giedi and the other as Secunda Giedi. Glasses will present them splendidly. These suns are obviously part of the same system, for both are at the same distance from us, about 251 light-years. It is probable that they are travelling in a colossal orbit round a common gravitational centre. If so, it must take some thousands of years to complete, for their distance apart must be many times that of Neptune's from our Sun.

Beta in Capricornus is actually composed of four suns, two being easily seen in good field-glasses. These are at a distance of 84 light-years, the larger yellowish star of 2½ magnitude while the other is of sixth magnitude, radiating only about twice as much light as our Sun and having a still smaller companion which probably revolves round it. The larger yellowish star has been found spectroscopically to be composed of two suns, which together radiate about 30 times more light than our Sun. The smaller one revolves round the larger once in 3 years 283 days at a speed averaging about 14 miles a second, and their distance apart averages 239 million miles.

G. F. M.

## FISH

From sharks 30 feet long, and so fierce that sailors call them the tigers of the sea, to the harmless gold-fish shining in our garden pools there are endless kinds of fish of almost every imaginable shape and size and colour and habit. There are flying fish, fish that climb trees, fish with bodies so transparent that we may see through them. There are fish as bright as a summer rainbow, electric fish which can give a man a severe shock, illuminated fish carrying their own lanterns about the midnight pastures of the ocean depths, sword fish which we may think of as unicorns of the sea, and fish armed with nearly as many spines as a porcupine.

#### Alice and the Whiting

There seems no end to the denizens of the deep, and all are wonderful. Even the common fish which come to our table are creatures of mystery, the plaice with its queer "one-sided" body, the salmon amazing us by its ability to leap up stream, the odd little whiting which Alice in Wonderland thought of as swimming with its tail for ever in its mouth, the herring which belongs to the biggest family of all.

Fishing, like farming, must be one of the oldest of occupations. Century after century men have gone down to the sea in ships to reap the silver harvest; and our own shores have a great company of hardy fishermen who daily put out to sea in boats which are little different from those used long ago.

We have scores of fishing ports and hundreds of fishing villages, where we may come upon weathered fishermen in blue, and most of them can boast that their fathers and grandfathers baited lines and shot their nets with never a thought of the hazards they ran. Along our coasts and by our streams we find the anglers, followers of Izaak Walton.

#### Fishers of Men

Fish have found their way into our everyday speech, for we say of an awkward person that he is like a fish out of water; we talk of a pretty kettle of fish; and sometimes we declare that something is neither fish, flesh, nor fowl, nor good red herring.

Fish come into many legends, the most famous of all being stories of lost rings afterwards found in a fish served at table. Tradition says that one of the ceremonial rings worn by the Pope once belonged to St Peter, who was a fisherman; and the old tale reminds us that there were simple fishermen among the Twelve who turned the world upside down; and that it was Jesus who said to Simon and Andrew as they mended their nets: Follow me, and I will make you fishers of men.

## Stamps on a Stamp

A new Brazilian 5000 reis stamp is to be issued this autumn in connection with the Rio de Janeiro Philatelic Exhibition.

It will be a particularly interesting one, as it will show Rowland Hill, who introduced the Penny Postage in England, as well as reproductions of the Penny Black stamp and the first Brazilian issue.

Great Britain had the first postage stamps, the Penny Black and the Two-penny Blue, both in the same beautiful design showing Queen Victoria. Brazil was one of the first countries to follow suit, and in July 1843 three stamps from that country appeared. They were all black and showed the respective value in a large circular design.

It will certainly be curious to see a stamp showing stamps.

## ST FRANCIS AT SAN FRANCISCO

### The Little Preacher to the Birds

Francis of Assisi, the humble little Italian friar who made a new light to shine upon men seven centuries ago, is to have a mighty monument in the Bay of San Francisco.

With what astonishment would the saintly little man look on it, for he never knew of the New World, and it was centuries after Balboa the Spaniard had gazed on the Pacific from a peak in Darien that the Spanish monks named their home in California after him—San Francisco.

San Francisco is a mighty city. Assisi, when Francis came from there, was a small village and the cell where



he dwelt was so tiny that it is enclosed in the middle of a big church.

Roses grow in the garden by the side, and Francis is said to have known the rose trees from which they are descended. Everything at Assisi is fragrant with his memory, the streets where he walked, and the two splendid monastery churches, one above the other on the hill. In them are wall paintings by Giotto of a worldwide fame, and the most famous of them all is one of St Francis preaching to the birds.

He was so eloquent and so gentle that the birds, it was said, came to listen to him. All the old world of that day listened to him also. Italy first and other countries after, and once he went to preach to the Sultan in Egypt and obtained from him the promise of better treatment for Christian captives.

Now the New World, which never heard his voice, but which may still hear the echo of his simple preaching of kindness and obedience and poverty, is to build a bronze statue to him as high as the statue of Liberty on the opposite shore of America.

We wonder what the lowly Francis would think of it; we are not sure that if he had his way he would not bid them sell it and give the money to the poor.

## 25 YEARS AGO

From the C.N. of September 1913

**Chocolate.** The year 1913 is the 400th anniversary of the introduction of chocolate into Europe. Chocolate, like quinine, comes from the New World. It grows in the hottest parts of South America, Ecuador being the most famous area. It is simply the seed, or beans, of the cocoa-tree, not related to the coco-nut, which comes from a palm-tree. Chocolate was first taken to Spain, where it is still the national beverage.

## HOW TO READ THE STORY OF THE WORLD

### A Guide For Thoughtful People

Our teachers are now thinking over plans for the year's work, and there are many other people who are thinking of the books they will be reading by the fire on winter evenings.

All thoughtful people are giving more attention to the study of history, whether it is the history of the remote past or the recent history in which we ourselves have played our little parts.

In considering the books which should be read it would be well worth while to study the sixpenny pamphlet on History Teaching in Relation to World Citizenship which has been compiled by a group of History teachers and others for the League of Nations Union.

This little book, for which Dr G. P. Gooch has written the Foreword and teachers throughout the country have answered a series of questions, is one of the most valuable guides to study which we have read.

#### A New Method Needed

Teachers of History at present have no easy task, for the progress of science has entirely changed the outlook of thoughtful people. Not that more material is required, for History, as Lord Acton said, should be an illumination of the soul and not a burden on the memory, and what is needed is a new method of stimulating the interest of a child outside its own life and its own country, and of arousing its curiosity about, and its sympathy for, other people's problems. Here is what the authors say on this matter:

Every child should leave school with a vision, a definite vision, however slight, of human history as a whole. He should see it as growth, change, development.

The long early ages, the rise of civilisation, the human adventure that is now continuing in the lives of each child and his fellows, should be to him as a vast cinematographic but living picture on whose screen there are coming now as actors himself and his fellows all over the world.

This should appear to him, as indeed it is, a great drama where years pass in thousands, where wealth and knowledge accumulate, where he and his fellows become the heirs of ten thousand discoveries made by men of many ages, of many races, nations, religions.

The book gives schemes of study for schools of various kinds, and concludes with a valuable list of books dealing with World History and the development of the Arts of Peace. Altogether it is one of the best pieces of work the L.N.U. has done.

## The Big Geysers of New Zealand

At Rotorua, in the thermal wonderland of New Zealand, there are several geysers which sometimes shoot up boiling water into the air and at other times show no signs of activity.

Of late the chief attraction for tourists visiting Rotorua has been the Waikite Geyser, which took a new lease of life a few months ago after a long period of rest. Toward the end of March Waikite awoke from its slumber. From its vent came small shots, as the explosions of boiling water are called. The shots have been increasing in power and size, and now Waikite sends up nearly every day plumes of boiling water 40 to 50 feet into the air.

Its neighbour, Pohutu Geyser, which was in former years the star performer in Rotorua's geyserland troupe, has been to all appearances dead for the past year. Its last activity consisted of three shots in May 1937.

Perhaps Waikite and Pohutu have come to an agreement to take turn about. The boiling water they cast into the air comes from the hot regions far under the ground.



# THE CLIFF PALACE

## CHAPTER 5

### The Head of the Snake

PETE and Mark were up in a flash. Mr Dutton was not so quick, but Roy and Mark jerked him to his feet.

"This way!" Pete yelled, and dashed back under the cliff.

It looked like suicide but was really good sense, for about 50 feet up the rock bulged outward like a pent-house roof. The four had barely reached this shelter before the front of the great fall struck this bulge and leaped outward. The whole cliff quivered with the terrific impact, and as for the noise it was simply stunning.

Plastered against the cliff face the little party stood motionless, deafened, blinded, while such an avalanche poured down that it appeared as if they had only escaped crushing to be buried alive. It seemed to Roy that it went on for whole minutes, but actually it was probably not more than 30 seconds before the fall was over. He opened his eyes and rubbed the dust out of them; then he heard Mr Dutton's voice. "Are you all safe?"

"I reckon," Pete answered, in his usual western drawl. As the great cloud of dust settled Roy saw that they were all four standing in a narrow space between the cliff and a monstrous pile of broken rock boulders and earth. The pile stood more than 20 feet high and its weight must have been at least a thousand tons. He stepped forward but Pete caught him by the arm.

"Might be more to come," he said briefly, and even as he spoke a solitary boulder dropped with a thump on top of the heap.

"The boat!" said Mr Dutton, in a very anxious voice.

"I don't reckon she's hurt, boss," Pete answered. "She was tied quite a way upstream. I guess we're all right now," he added and moved out. The first thing he did was to run to where the boat had been moored.

"She's all right, boss," he shouted. "Ain't even got a pebble in her."

"Thanks be for that," said Mr Dutton fervently. He went toward the spot where they had been sleeping. It was littered with boulders, some too big for a man to lift. He pulled up and stood looking at it.

"Not one of us would have been alive but for your warning, Roy," he said gravely.

"That was your doing, sir," Roy answered. "You set the watch. I say, do you think—" He stopped short, but Mr Dutton knew what he meant.

"I don't know what to think. Rock falls are not infrequent in these gorges, but this one—well, the time and the place are a bit too well chosen to be altogether chance."

"But if they're up there they may try it again," said Mark sharply.

"Not likely," Mr Dutton told him. "If it was Ashley Quent's work it was probably a time fuse. It would take a long time to climb up there and come back."

"Then you think they're close behind us?" Roy asked.

"Probably. But now Quent won't hurry for he will feel sure that we are wiped out." Roy chuckled. "Sell for him, for now we'll get there first."

"We'll have a mighty good try," agreed Mr Dutton. He looked at his watch. "I think we can all sleep safely now—that is, if we can ever recover our blankets."

It took half an hour's hard work to rescue their bedding, and some of it was spoilt. But the stores were all right for they had been left close to the boat. All four moved a little way up-river, so as to be out of the way of loosened boulders, and slept till dawn. It was hardly daylight when they had finished breakfast and were lining the boat down the Staircase. This time they took no chances: they used two ropes.

All the same it took a long time, for all the stores had to be carried over a most dangerous and difficult path, a mere ledge under the cliff. As they worked they kept on looking back for Quent's boat, but it did not show up. Mark was uneasy.

"When Quent comes," he said, "he will see that our boat is gone."

"I reckon he'll think it's sunk," Mr Dutton answered; "but in any case we shall be well out of sight, and, with any luck, we ought to reach the Cliff Palace ahead of him. Once we are in it we can easily block the trail up the cliff."

They did not spare themselves that morning. Every rapid that could be run they did run. There were only two which were so bad they had to land and portage around them. The weather was very hot and all worked stripped to the waist.

## A Short Serial By Christopher Beck

"We're doing fine," said Pete, when they stopped for a meal at midday. "I reckon we ought to reach the Snake afore night."

"The Snake—what's that?" Roy asked.

"A mighty bad place," Pete told him. "And you can't portage, because the cliffs is sheer both sides. But me and Jake got down it all right, so I reckon we can do the same."

In spite of the need for haste, Mr Dutton made them take a full hour's rest. Indeed, they needed it for they were all tired. They got afloat again at once and kept the boat moving fast down a couple of miles of good water. Then came a bad place. This rapid was short but terribly steep and one mass of waves. They unloaded and put two lines on the boat. Pete sat in her stern with the steering oar. She went down finely, riding the waves like a duck, but when she got to the bottom of the rapid she turned her nose outward and shot across toward the opposite cliff. Pete worked furiously but could not stop her, and it was all the three on shore could do to hold her. They stopped her, she came round, rose on a wave, then ducked her bows under and vanished.

"It's a whirlpool!" cried Mr Dutton. "Pull—pull for all you're worth."

Roy was scared almost stiff. He felt sure that Pete was drowned. But he pulled with all his strength, and gasped with relief as he saw the boat come up, with Pete still in her. She was full to the gunwale, but now they had her out of the eddy, and in another minute she was safe under the shelving bank.

"Water's mighty cold," was all that Pete said as he climbed out and helped to pull the boat on to the beach. They baled her dry, repacked her, and got off again.

In spite of the delay they reached the head of the Snake before dark. It was too late to run it that night so Mr Dutton ordered camp to be made. After the fire was lighted he and Roy walked on to have a look at the rapid. They climbed on a pile of broken rock, and there was the Snake. Roy drew a long breath. During the past two days he had seen some bad places, but never anything like this.

The Snake was about half a mile long. The river, penned between perpendicular cliffs, rolled down the steep in a thunder of white foam, fearful to contemplate. To

make it even worse, down near the lower end of the rapid a great rock, which must have fallen from above, perhaps hundreds of years ago, ran out like a promontory, so that the whole current was piled against it in a boiling mass.

For a long time neither spoke; they stood fascinated by the fury of the mad river, deafened by its thunder. At last Mr Dutton turned to Roy. "We can't go back," he said.

Roy stiffened. "Go back. Why should we? Pete and Jake got down it."

Mr Dutton shrugged. "If I had known of this I should never have started," he said. "I don't mind risking my own life, but I have no right to let you take such chances."

"It's probably not half as bad as it looks," Roy said sturdily, then pulled up short. "Oh!" he gasped.

A wave at least 15 feet high had risen almost at their feet. It covered the whole breadth of the river and swept away down the rapid, rolling in white foam like an ocean breaker, and collapsing with a roar that for a moment drowned even the thunder of the Snake itself.

"W—what made that?" Roy stammered.

Mr Dutton did not answer: he stood frowning at the river. A few moments later a second wave, like the first, reared its mighty crest and went smashing over the verge. Mr Dutton's face cleared.

"It's a flood. A cloud-burst somewhere up-stream. See how the river is rising."

Roy could hardly believe his eyes, for before them the white foam of the rapid was disappearing. There was only a rushing current instead. Rocks which a minute before had raised their black heads amid the surges had vanished. The river had risen six feet in less than as many minutes and was still rising.

## CHAPTER 6

### Wreck

THAT night watch was kept but there was no sign of Quent's party. At earliest light they went to inspect the rapid. The river had fallen but was still a good deal above its level of the day before. They were all rather silent as they ate breakfast. Then they stowed everything carefully in the boat, pushed off, and almost before they knew it were in the rapid.

It was the wildest, most daring and exciting ride that could be imagined. The current, rushing from one side to the other,

## JACKO TAKES NOTICE

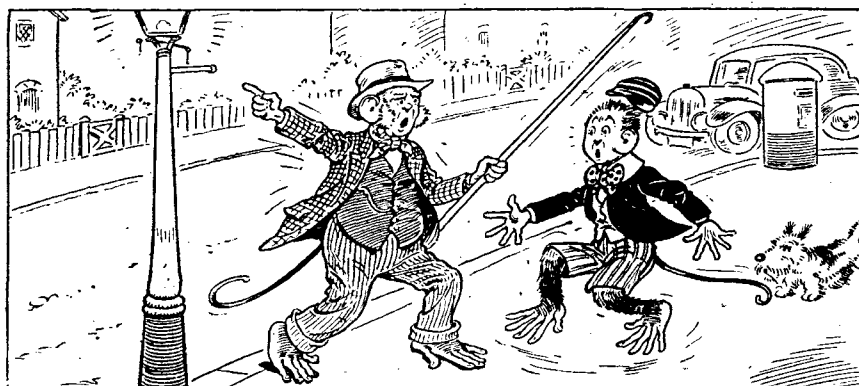
JACKO was being scolded by his father for being so unobservant.

"You dream far too much, my boy," said Father Jacko. "You must wake up and notice things as you go about."

It was not long before Jacko did so. He was sauntering along the road one sunny afternoon when he pulled up short and stared at a street lamp.

He looked so fierce that Jacko didn't stop to argue. He just stalked away with his nose in the air.

But before he had gone many yards he heard the lamp-lighter hobbling after him, carrying his long pole. Mr Buzz had evidently thought better of it, and decided to turn off the light before the authorities found out his carelessness.



Mr Buzz was furious

"Gosh!" he muttered. "The old chap's left this one alight by mistake. I'd better nip along and tell him."

And off he went.

Mr Buzz was enjoying a little nap when Jacko thumped loudly on his door. It roused him up with a start, and made him angry. "Now then," he growled. "What do you want?"

"You've left one of the street lamps alight," cried Jacko. "Hurry up and turn it out before it wastes any more gas."

"What impudence!" retorted the man. "Be off at once. Time to order me about when you pay rates yourself!" he added, indignantly.

"Hi! Stop a bit, my lad," he panted. "Since you've troubled to come, you can show me where that lamp is."

With a satisfied grin Jacko escorted him up one street, down the next, round one corner, then round another, till at last they reached the lamp where a bright light shone.

"There you are!" he cried, pointing triumphantly. "Now what am I going to get for my trouble?"

"Why, that!" exploded the old man, bringing his pole a smart whack across Jacko's shoulders. "Anyone but a simp like you," he roared, "would know that it was only the reflection of the sun."

constantly threatened to fling the boat against the canyon walls, and it was only by the most desperate efforts that they escaped disaster.

The speed was terrific and, almost before Roy knew it, he saw the great rock flash into sight. He saw the muscles of Pete's bare arms writhe as he swung the steering oar with all his might, then, with a crack like a rifle shot, the oar snapped, the wave caught the boat, there was a shock that flung Roy backwards, and when he scrambled up he found the boat, with all in it, stranded high on the rock.

Instinctively he sprang out and, planting his bare feet firmly, clung to the gunwale. Pete did the same, and an instant later Mark joined them. But Mr Dutton lay stunned at the bottom of the boat.

"Pull!" Pete roared, and by almost superhuman efforts the three succeeded in dragging the heavy boat the extra yard which saved her from being swept away by the next surge.

"Get the boss out," Pete ordered, and Roy and Mark lifted him out and laid him on the dry summit of the great rock.

"Is he bad hurt?" Pete asked.

"No, he is coming round," Mark answered.

"Then get the stuff out," Pete said. "We got to see how bad she's damaged."

There was a fairly level space on top of the great rock where they quickly piled the stuff. Before they had finished unloading Mr Dutton had come round and wanted to help, but they would not let him.

"Save your strength, boss," Pete said, and for once his voice was grim. "Even if the boat ain't hurt it'll be a job to get her back in the water."

Roy glanced down at the roaring rapid. He did not say anything, but to him it did not seem possible that the boat could ever be launched again. He helped to turn her over, and his heart sank still lower when he saw the damage. There was a hole a foot long and half that width.

Pete examined it. "I guess we can fix it," he said. "Lucky we brought that copper sheeting. Get the tools out, Roy."

He went to work as coolly as if he was in a carpenter's shop instead of being perched on a crag above one of the worst rapids in the Colorado, and his coolness made Roy feel better. He and Mark helped as well as they could, but Pete was the one who understood the work and did most of it.

Even so the job took a long time and Pete was weary when at last he straightened his back and said he reckoned the patch would hold. "You feel up to starting, boss?" he asked. "We'd ought to get along if we wants to reach the Rock Bridge before night."

"What I feel like is food," Mr Dutton answered. "And you three need it more than I. Sit down. I have it ready."

So he had. He had even made hot coffee on a spirit stove. Roy was hungry, but he hardly noticed what he ate. He was wondering how they could possibly get afloat again, but would not say anything for fear of discouraging the others. In any case it was pretty hard to talk because the steady thunder of the great rapid was deafening. They had just finished and were putting the things away when Mark gave a shout. "Here's Quent!"

All sprang up. Here came Quent. His son was with him and Jake Holt, and in the stern of the boat a huge fellow with a face that looked as if it was carved of granite and muscles that bulged in knobs on his arms and back.

"Ole Bronson!" Mr Dutton exclaimed. "The finest river man and the biggest brute in Colorado! I could have had him myself but I wouldn't hire him."

Bronson knew his job. No doubt of that. The way he handled the big boat was superb. The boat itself was a fine craft, partly decked, very solidly built, and there was a motor casing amidships. Quent sat in the bow, and suddenly he saw the party perched on the rock. For a moment there was an expression of amazement on his hard face, but this changed to one of triumph. Roy saw him point and saw Gordon Quent staring at him as the motor-boat swept past at racing speed. Next moment it had driven through the narrow channel between the great rock and the opposite cliff and was floating safely in the calmer water below. Quent motioned to Bronson and he brought the launch round, facing up-stream.

Quent put a speaking trumpet to his mouth. "Any message I can take to your friends, Dutton?" he shouted.

"I'll take my own messages," Mr Dutton replied.

"You'll have a job," shouted Quent. The launch turned and sped away down-stream.

TO BE CONTINUED



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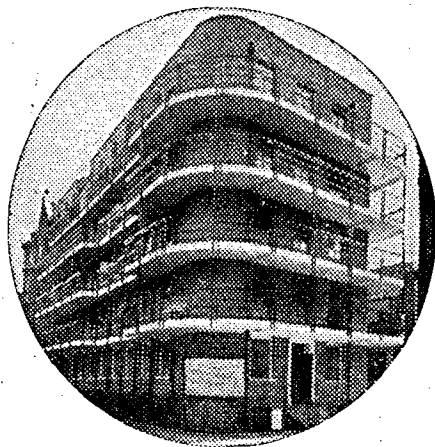
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# CHILDREN'S NEWSPAPER

September 17, 1938

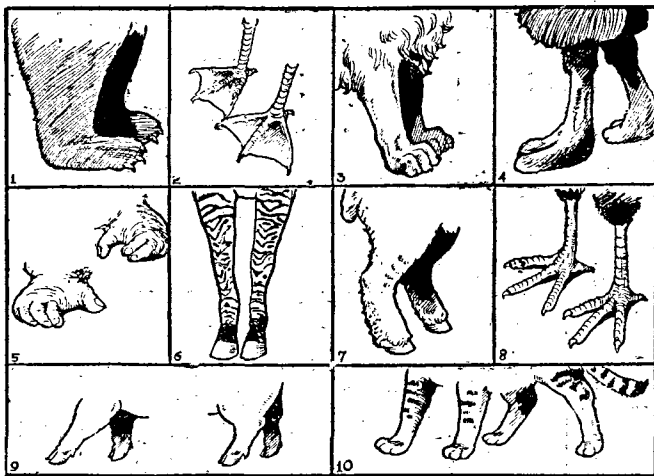
Every Thursday 2d

Arthur Mee's Children's Encyclopedia will be delivered anywhere by the Educational Book Co., Tallis Street, E.C.4.

## TWENTY-SEVEN MONEY PRIZES TO BE WON BY GIRLS AND BOYS

THE feet shown in these pictures all belong to animals or birds that are common in zoo, farm, or home.

All the correct names appear in the list opposite, and the Editor offers two prizes of ten shillings each and 25 half-crowns to readers who can identify most. In the event of ties the prizes will be awarded to senders of the best-written lists qualifying, and allowance will be made for age. Write the number and name of each on a post-card, add your name, address, and age, and send the post-card to C.N. Competition Number 62, 1 Tallis House,



London, E.C.4 (Comp), to arrive not later than first post on Thursday, September 22.

Select your names from the following list:

Anteater, Antelope, Bear, Camel, Cat, Chicken, Cow, Dog, Donkey, Duck, Duckbill Platypus, Eagle, Lion, Monkey, Ostrich, Pig, Sheep, Zebra.

This competition is for girls and boys of 15 and under and there is no entry fee. The Editor's decision is final.

If you are a prizewinner and your entry bears the name and address of a friend who is not already a reader and who promises to take the C.N. for a month, 2s 6d will be awarded in addition to the prize.

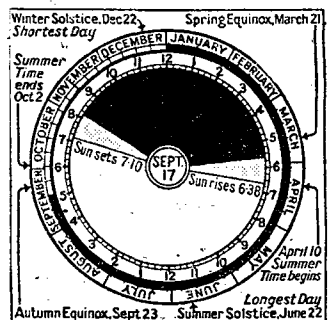
## THE BRAN TUB

### An Old Saying Misapplied

ONE who when asked could not comply exclaimed, "I've other fish to fry." A Dutchman, who overheard the saying, soon misapplied it, this odd way in: "I would do dat vich you do vish, Buf I must go and fry some fish."

### The C.N. Calendar

THIS calendar shows daylight, twilight, and darkness on September 17. The black section of the circle under the months



shows at a glance how much of the year has already gone. The days are now getting shorter.

### Ici on Parle Français



Le cerf-volant La cheminée Une échelle  
kite chimney-pot ladder

Le vent a chassé le cerf-volant contre la cheminée. On a dû aller chercher une échelle pour le descendre.

The wind blew the kite against the chimney-pot. They had to fetch a ladder to get it down.

### What Happened on Your Birthday

Sept. 18. William Hazlitt died 1830  
19. Battle of Poitiers 1356  
20. Robert Emmet executed in Dublin 1803  
21. John Loudon Macadam, roadmaker, born 1758  
22. Dr Richard Busby born 1606  
23. Wilkie Collins died 1889  
24. Dean Milman, historian, died at Ascot 1868

### This Week in Nature

THE tree wasp completes its nest. This insect makes its nest by tearing off wood and chewing it until a paper-like

substance is attained. The nest is then built on the bough of a tree or in a bush, the cells are made with the mouth downward, and arranged in tiers, with sufficient room for the wasp to fly freely. Despite the apparently fragile nature of the nest it is well able to resist the weather.

### Other Worlds Next Week

IN the evening Venus is in the south-west, Jupiter in the south, and Saturn in the south-east. In the morning Saturn is in the south, and Mercury and Mars are low in the east. The picture shows the moon at nine o'clock on Monday morning, September 19.

Twinkle, Twinkle, Little Star! SCINTILLATE, scintillate, globule vivific, Fain would I fathom thy glory specific, Loftily poised above the capacious, Closely resembling a gem carbonaceous.

### Justice

WE heard the other day of a small girl who said to her mother: "Isn't Spot a naughty dog? He has eaten my doll's slipper."

"He is very naughty," her mother agreed, "and deserves to be punished."

"Oh, I've punished him already," was the reply. "I went to his kennel and drank his milk."

### The Wasp

A. NOSY insect is the wasp. Annoyed with him I am. Just when we're nicely settled down, He claims our picnic jam!

### LAST WEEK'S ANSWERS

What Is It? Radio (R, AD, 10)  
Anagram. Leak, Kale, Lake  
Is This Your County? Wiltshire  
The C.N. Cross Word Puzzle

SHOVEL WASHER  
HIRE LATE EASE  
YD NAPHTHA SX  
ENDS EALOE  
USE KAYAK ANT  
R WASH MEWS A  
GASP OWE ITEM  
ED SAYINGCS WE  
DREYN SHOE

## FIVE-MINUTE STORY

IRIS and Malcolm were staying at a farmhouse, and enjoying themselves immensely till mysterious things began to happen.

At dinner-time one day the farmer's wife exclaimed: "There's a whole row of washing down on the ground and several pegs missing! One would think there was a mischievous little pixy about the place."

She looked rather suspiciously as she spoke at her young guests, who felt uncomfortable. But they knew nothing about the matter and hastened to tell her so.

But for the next few days she complained frequently of

all kinds of things being missing, and the young Vernons were quite relieved when at last they could each report the loss of something from their own dressing-tables! Iris's loss was a tiny reel of silk, while Malcolm bemoaned the disappearance of a small silver pencil.

"Well, really, the place seems bewitched!" was Mrs Howard's rather worried remark, but as she had to hurry to her butter-making no more was said.

About ten o'clock that night Iris was roused out of her sleep by a rattling sound. It seemed to be in the wall of her room, and when she had

fetched Malcolm to listen the noises made them both feel so creepy that at last they bundled off downstairs to tell Mrs Howard and her husband.

Neither of them could "make head or tail" of the noises, they said, so a thorough hunt of the house began.

Presently Iris gave a squeal of surprise. She had been peering up into the big old chimney-place of a room below hers, because she could hear the noises quite plainly there. Her scream came as a scabbling sound was followed by one of the frolicsome house kittens springing down from somewhere inside the chimney into the room.

## A FARMHOUSE FRIGHT

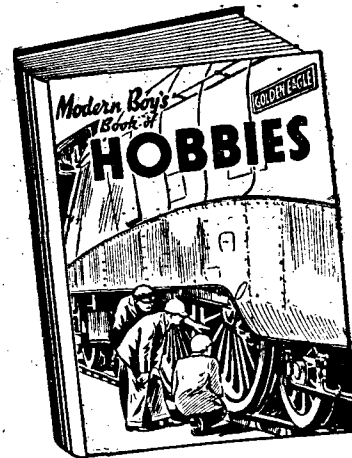
"But wherever has the little rascal been?" cried the farmer. "Here, Malcolm! You're smaller than I am. Just take a squint inside that chimney with your torch."

"Steps!" the boy yelled out excitedly after a minute's inspection; and, sure enough, there were little footholds in that chimney which, to their astonishment, led to a tiny secret room, where two magpies had made their home.

And on the floor were all the missing belongings!

The kitten, having explored the chimney, as pussies often do, had found a fine playroom, with playthings all ready.

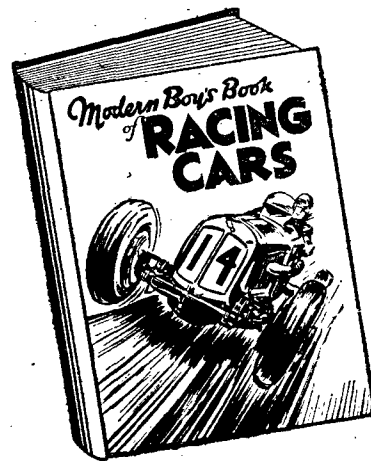
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